

ANNUAL REPORT
OF THE
SANITARY COMMISSIONER WITH THE
GOVERNMENT OF INDIA,

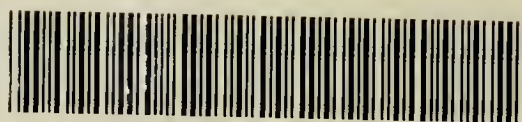
1896,

WITH

APPENDICES AND RETURNS OF SICKNESS AND MORTALITY AMONG
EUROPEAN TROOPS, NATIVE TROOPS, AND PRISONERS
IN INDIA, FOR THE YEAR.

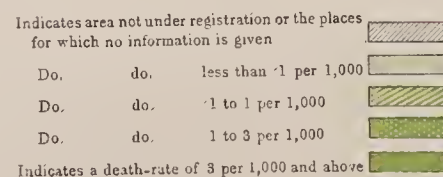


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OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA.
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Scale 1 Inch = 96 Miles or $\frac{1}{1280}$



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CALCUTTA:
GOVERNMENT OF INDIA CENTRAL PRINTING OFFICE,
HASTINGS STREET.

WELICOM INSTITUTE	
OF	INDIA
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ANNUAL SANITARY REPORT FOR 1896.

SECTION I.

METEOROLOGY OF THE YEAR.

1. The following report on the Meteorology of India during the year has

Summary of the meteorological phenomena of the year, month by month.

been kindly furnished by the Meteorological Department of the Government of India :—

January.—The month of January was fine and less disturbed than usual in Northern India and the rainfall of the month was, hence, in general defect. There were three periods of disturbance and of rainfall during the month, two of which were due to cold weather storms of the usual character. The total rainfall of the month was more or less in defect over the whole of India, Baluchistan and Burma, and was *nil* in Rajputana, Central India, Berar, the Central Provinces, South Bihar, Chota Nagpur, Orissa, North Madras, the Deccan and the West Coast. Accompanying this lightness of the rainfall there occurred a moderate to considerable excess of temperature over Upper India and Baluchistan where both the day and night temperatures were higher than usual. There was on the contrary a slight deficiency of temperature over Central and Upper Burma, Assam, Bengal, Orissa, Berar, the Central Provinces, the Deccan and Madras, where lower night temperatures than usual were experienced, more especially in Bengal, Assam and the Central Provinces.

The mean pressure of the whole country was '003" below the normal and was relatively in greater excess at the hill stations than on the neighbouring plains.

The air was drier than usual over the whole of Burma and India with the exception of Baluchistan, Sind and the Punjab. This increased dryness was not a temperature effect, but was due to the amount of aqueous vapour in the atmosphere being below the average. At many stations in the Central Provinces, Berar, Chota Nagpur, Bihar and West Bengal, this absence of water vapour was very marked. In the extreme east and extreme west of the Indian region there was more cloud than usual, but elsewhere the sky was abnormally clear.

The month of January was less disturbed than usual and the rainfall was less than an average of one-tenth of an inch over by far the greater part of India. In Northern India there were three periods of disturbance. The first from the 11th to the 14th, when moderate showers were received in Baluchistan, Kashmir and part of the Punjab; the second from the 18th to 19th, when light showers were received over the South-East Punjab; and the third from the 27th to 31st, when Baluchistan, the Punjab, Kashmir and parts of the North-Western Provinces, North Bihar, Bengal and Assam had light to moderate rain. The Madras coast districts received showers on the 1st, 8th and 9th, while elsewhere there was absolutely or practically no rain.

February.—The weather was a good deal disturbed over Northern India, but was, on the contrary, very quiet and settled over the Peninsula and the Central Provinces. The rainfall was, however, again deficient over the greater part of India, and, as was the case during January, abnormally high temperatures prevailed over nearly the whole country, but more particularly over Northern and Central India. The day temperatures were excessive except in Assam, Burma and South Madras, the excess being over 5° in parts of West Bengal, the East of the North-Western Provinces and of Central India. The night temperatures were lower than usual over the Peninsula and higher than usual in Northern India. The excess was as large as in the case of the day temperature, but the area of greatest excess lay more to the westward and included Eastern Rajputana and the Central Punjab. The mean temperature of the month was in slight defect over the Peninsula and Burma and in slight to considerable excess over the remainder of India.

The mean pressure of the whole Indian area was '012" lower than usual.

In the extreme North-East and extreme North-West of the Indian region, as well as on the Madras coast the air was damper than usual, but over the remainder of India the excessive



dryness which had been the characteristic of the weather in January continued. During two periods, *viz.*, from the 16th to 22nd and on the 27th and 28th, the air was excessively dry. The cloud amount was slightly excessive in the extreme North-West and extreme North-East and much below the normal elsewhere.

The weather was feebly unsettled over Northern India and five low-pressure waves passed over this region during the month. The precipitation accompanying these storms was small on the plains and was restricted to the extreme North-West and North-East of India, but within these areas, which included Burma, Assam, East Bengal and the Punjab, the month's rainfall was slightly heavier than usual. The hills in Upper India received more frequent falls of snow than usual, but the amounts were not heavy and the total fall for the month, except perhaps in Kashmir, was less heavy than the average. Over the centre and south of India the rainfall was practically *nil*.

March.—The weather during March was a good deal disturbed over the North of India, this increased disturbance being due to a succession of storms, the majority of which were of the usual cold weather type and three of which originated over Persia. The arrival of these storms over India from the westward showed that cold weather conditions existed till an unusually late date over the regions bordering the North-West frontier. These conditions were not, however, present over India where the mean temperature was higher than usual over Burma and the whole of India and Baluchistan with the exception of Upper Assam and part of the West Coast districts. The day temperatures were normal or in slight defect over Arakan, Upper Assam, the North-West and Central Punjab, and the West Coast, and were higher than usual over the remainder of India. The abnormal excess was greatest and more than 5° in amount over North, Central and West Bengal. The night temperatures were also above the normal over the greater part of India, but generally by smaller amounts than the day temperatures.

The mean pressure of the whole country remained low and was $0.022''$ below the normal.

The air was somewhat damper than usual over East Bengal, Assam, the Punjab, Sind and Baluchistan, while it was drier elsewhere. It was excessively dry in West Bengal, Chota Nagpur, Bihar and the North-Western Provinces; and was very dry in Coorg, Berar, the Central Provinces and on the hills. Cloud was in slight excess over North-West India and Baluchistan, but was less than usual elsewhere.

As mentioned above five feeble disturbances, three at least of which advanced from Persia, affected the weather over Northern India, Baluchistan and Kashmir. Owing to these disturbances, Baluchistan, the North Punjab, the Punjab Hill districts, as well as Assam, East Bengal and Sikkim, received an average rainfall of between 1 and 2 inches, and in Baluchistan, Kashmir, the West Punjab, the Assam Hills and Cachar the rainfall of the month was in excess of the normal. In all other districts the rainfall was less than usual, and in Lower Sind, Cutch, Gujarat, Kathiawar, Bombay, Mysore, Burma (with the exception of the more Northern districts and the Tavoy and Mergui districts), Central and North Bengal, Chota Nagpur, Bihar, the North-Western Provinces (except the Hills), the Central Provinces, Berar, Rajputana, Central India, the East Coast (Central), and Madras (Central and South Central), the total average fall for the month was less than one-tenth of an inch.

April.—During April the weather was, as usual, a good deal disturbed by thunderstorms and thundershowers, but, on the whole, these periods of disturbance were less frequent than usual, and the rainfall of the month was hence generally below the normal, and as a consequence the heat was almost everywhere greater than usual. The mean temperature of the month was locally below the normal at Sibsagar, but was in excess at all other stations. The excess was greatest, and more than 3° in amount, in parts of Rajputana, Cutch, Central India, Berar, Chota Nagpur and West Bengal, and was small at the coast stations and in the submontane districts of Northern India. The day and night temperatures were everywhere in excess, the greatest excess relatively to the normal, in the case of the day temperatures, being reported from West and Central Bengal, Lower Sind, Cutch and South-West Rajputana, and in the case of the night temperatures from East Rajputana and the West of the North-Western Provinces. The mean maximum temperature for the month was between 100° and 107° over the central parts of India and the Peninsula. A very remarkable cool wave passed across Northern India between the 14th and 21st, causing a reduction of temperature of between 20° and 25° at many of the stations in Persia, Baluchistan and North-West and Central India.

Pressure remained low, and the mean pressure of the whole of India for the month was 0.033" below the normal.

The air was abnormally dry over nearly the whole of Northern and Central India, Berar and the Central Provinces, and the mean humidity of the month was upwards of 10 in defect at several stations in this area. Part of this deficiency was due to higher temperatures than usual, but it was mainly due to a large deficiency of aqueous vapour. The air was excessively dry at the hill stations. The amount of cloud was in slight excess over part of North-East India and in Burma, but was less than usual elsewhere.

There were four periods of disturbed weather and rainfall during the month. The first ran from the 1st to the 5th, when Kashmir, the Deccan and the Malabar Coast districts received light to moderate showers. The second was between the 13th and 15th, when the hill and submontane regions in the North, West and East, and North Bengal and Assam, obtained showers. The third from the 16th to the 21st, when the Bombay Deccan, Ganjam and Malabar received thundershowers; and the fourth and last from the 20th to the 30th, when Assam and East and North Bengal received moderate to heavy rain. The rainfall was thus mainly confined to Burma, Bengal, Assam, Malabar, Mysore and Coorg, and these were the only areas which received moderately heavy rain. The average rainfall of the month was practically or absolutely *nil* over Sind, Rajputana, the Punjab (except the north and the hills), the North-Western Provinces, Bihar, Chota Nagpur, Central India, the Central Provinces, Berar, Kathiawar, Gujarat, the Konkan, Hyderabad and the Madras Coast districts. It was less than half an inch in Central and Upper Burma, the North Punjab, Baluchistan and the Madras Deccan. The rainfall of the month occurred almost wholly during thunderstorms, and was hence very irregularly distributed.

May.—Except in three regions, *viz.*, Tenasserim, part of Bengal and Assam, and Southern India, more especially Malabar, the weather over India during May was more settled than usual with fewer dust and thunderstorms than ordinary. Hence temperature was generally in excess over the whole of India, the night temperatures being as much affected as the day temperatures. The mean temperature of the month was normal or in very slight defect in North Bihar, North and East Bengal, and Lower Burma. It was above the normal over the remainder of India, more particularly over the Punjab and the west of the North-Western Provinces where the excess was greater than 5°. The day temperatures were higher than usual in all parts of the country except part of Burma and North-East India. The hottest areas relatively to the normal were West Bengal and the neighbouring districts, the Punjab and Upper Sind, and South Madras. The minimum or night temperatures were excessive except in North and Central Bengal. The amount of the excess increased from the coasts towards the interior, and was greatest over North-West India.

The highest maximum temperatures during the month were registered at Jacobabad (121°), Mooltan (117.5°) and Montgomery (118.4°), and were recorded during the last week.

The mean pressure of the Indian land area for the whole month was 0.013" above the normal.

The air was drier than usual, except over Burma and North-East India, where humidity was slightly above the normal. The deficiency was mainly due to the excessive temperature, and was most marked over the area of greatest heat. The cloud amounts showed the same general variations as those of humidity.

The rainfall of the month was due to feeble hot weather disturbances and occurred during thunderstorms and duststorms. These storms were less frequent than usual except in Burma, Assam, Bengal and Southern India. The chief periods of rainfall during the month were the 1st to the 5th, the 10th to the 12th, the 15th to the 18th, and the 23rd to 31st. As mentioned above, Tenasserim, Deltaic, North and East Bengal, North Bihar, the South-East Punjab, Malabar and the Bombay Deccan received more rain than usual, but in all other parts of India the fall was below the normal, and in Baluchistan, Sind, Kathiawar, Gujarat, Central India, Berar, Central Provinces, Rajputana and the Southern Districts of the Madras Presidency, the fall for the month was practically *nil*. In Upper India there was only one period of disturbance, *viz.*, the 10th, 11th and 12th.

June.—The mean temperature conditions of the month were chiefly determined by the prolonged delay in the establishment of the monsoon and by its subsequent rapid advance from the coast districts to the Gangetic Plain and Upper India. The heat was thus generally above the normal during the first two weeks of the month and generally below in

the last two, though, in the case of the Punjab, Sind and Rajputana, the excess lasted beyond the first two weeks. The mean temperature of the month exceeded the normal in three areas, *viz.*, the Punjab, Sind and Rajputana ; Burma, Assam and North Bengal and the Peninsula, south of Latitude 19° N. In other parts of India the mean temperature was in defect. The distribution of the day temperatures relatively to the normal was the same as that of the mean temperature, while the night temperatures were above the normal over the whole of India with the exception of South Bengal, West Bengal, the Central Provinces and the greater part of the North-Western Provinces. Between the 10th and the 25th, an excessively hot period was experienced over North-West India, when the highest temperatures of the year were recorded and when the thermometer rose to 123° at Jacobabad and 120° at Khushab and Montgomery.

The mean pressure of the Indian land area for the month was $0.016''$ below the normal.

The air was slightly drier than usual in Burma and Assam, but elsewhere humidity was about normal or in slight excess. Humidity was most largely in excess at the hill stations. The sky was unusually clear of cloud over the Punjab and Assam, but elsewhere there was more cloud than usual.

The rainfall of the month was excessive over the greater part of the country. There was considerable delay in the establishment of the monsoon along the West Coast, but during this interval moderate to heavy rain from thundershowers occurred over Malabar, Burma and Bengal. The monsoon rains proper commenced on the Malabar Coast on the 13th and 14th, and the wave of rainfall extended rapidly into the interior reaching the East Punjab before the 20th. The rainfall of the month was in moderate excess in Lower Burma and moderate defect in Central and Upper Burma, in considerable defect in Arakan, and in large defect in Assam, North Bengal and North Bihar. It was more or less in excess in the remaining parts of Bengal, the Central Provinces, Central India, Rajputana, Sind and the North-Western Provinces. The rainfall over the Peninsula showed a deficiency over the South Konkan, the Coromandel coast districts, the Madras Deccan and Hyderabad, and an excess in other parts as well as in Gujarat and Kathiawar. In the Punjab the rainfall was irregularly distributed, but for the whole province was about normal.

July.—The temperature conditions of the month of July were largely determined, as is usually the case, by the distribution of rainfall, and, as the rainfall was very irregularly distributed and was very scanty in parts of both Northern and Southern India and excessive across the head of the Peninsula, the temperature conditions varied considerably from the normal. For the first three weeks the rainfall was generally below the normal and the excess across the head of the Peninsula was due to the heavy rainfall of the last ten days. The mean temperature of the month was in excess over the whole of India. This excess was greatest in two areas : one including North and East Rajputana, and the Punjab ; the other the Madras Coast districts, south of Vizagapatam. The day temperatures exhibited the same variations as those of the mean temperature, being excessive all over the country but particularly over the two districts mentioned above. The night temperatures displayed very similar variations, but of smaller amount. The hottest period during the month in North-West India occurred between the 10th and 14th, when maxima of between 112° and 115° were recorded, and in Madras between the 3rd and the 10th when maxima between $102\frac{1}{2}^{\circ}$ and $105\frac{1}{2}^{\circ}$ were registered.

The mean pressure of the Indian land area was $0.010''$ lower than the normal. There was a trifling excess over North-West India and the Peninsula, and a considerable defect over North-East India.

The air was drier than usual over Southern India generally, as well as over a considerable part of North-West India and the Gangetic Plain. The humidity was in greatest defect in Bangalore and Trichinopoly. The sky was slightly more cloudy than usual in Burma and Bengal and less cloudy than the average in the North-West Provinces, the Punjab, Sind and Rajputana. Over the Peninsula and Central Provinces there was a slight excess.

The monsoon current over the Arabian Sea was slightly weaker than usual during the first-half of the month and the rainfall was light at this time over North-West and Central India. It, however, blew strongly during the 2nd fortnight. The Bay current was strong throughout the month, but it was unsteady and largely diverted to Burma. Conditions were hence not very favourable for rain from these causes, but, in addition, a series of three storms formed in the Bay during the month and passed westward through the Central Provinces. The monsoon currents were diverted largely to the storm areas, so

that, while places in the tracks of the storms received heavy rain, little or no rain fell in the Punjab, North-Western Provinces and Rajputana, and only showers in Bengal and Assam. The rainfall of the month was very scanty and more or less below the normal over the whole of the Punjab, the North-Western Provinces, Sind, Central India and the greater part of South and Central Madras. It was, on the contrary, in moderate excess over Orissa, Chota Nagpur, Gujarat and the Konkan; in large excess in the East of Central Provinces and the Bombay Deccan, and in very large excess in Khandesh; while over the remainder of the country the rainfall of the month varied but little from the normal.

August.—The rainfall of the month was more irregularly distributed than usual and, as a consequence, the variations of the mean temperature from the normal were irregular. The mean temperature of the month was greater than usual in Northern India, Upper and Central Burma and South Madras. The greatest abnormal excess within these areas was reported from the West Punjab and amounted to 2.9° at Mooltan. The mean in all other parts of the country was below the normal. The deficiency was generally small, but in Kathiawar amounted to 2° . The day temperature was, on the average of the month, above the normal in Northern India and South Madras and below elsewhere, while the mean night temperature was above the normal over the whole Indian region except in Berar, the Central Provinces, North Bombay and Central India. The rains ceased early over Northern India, and the mean temperature at the close of the month was in large excess in that area.

The mean pressure of the whole Indian area was very nearly normal, being $0.005''$ higher than usual. There was a slight deficiency over the Gangetic Plain, North-East India and Burma, and a slight excess elsewhere.

The air was somewhat drier than usual over the West Coast districts and South Madras, as well as over the greater part of Bengal, but was damper than the average elsewhere. The sky generally was more cloudy than the normal, particularly over Burma and the Central Provinces, but in three areas, *viz.*, Bengal, a large part of the Punjab, and South Madras, the sky was unusually clear.

The rainfall of the month was largely determined by the cyclonic storms of the month, which determined heavier rain than usual to the head of the Peninsula from Orissa to Sind and lighter rain than usual to other parts of the country. The principal rainfall periods were from the 1st to the 8th, from the 11th to the 16th or 17th, and from the 19th to the 23rd. The monsoon rains terminated unusually early in Upper and Central India. The total rainfall of the month was in slight defect in the Punjab, in moderate defect in the North-Western Provinces, and in considerable to large defect in Bengal and Assam; it was practically normal in Central India, Berar and Orissa; in moderate excess in the Deccan and North Madras; and in large excess in the Central Provinces. Over the south of the Peninsula the variations were irregular.

September.—The monsoon currents were abnormally weak over the Indian seas at this time, and September was an abnormally dry month over the greater part of the interior of India. Owing to these abnormal conditions the temperature was more or less above the normal over nearly the whole country. The mean temperature of the month was normal over Burma, Bengal, and Assam, but more or less in excess over the remainder of India. The hottest areas were the North-Western Provinces and the south and east of the Punjab, and the greater part of the Deccan. The abnormal excess was as much as 4.8° at Agra, 4.7° at Allahabad, and 4.1° at Sholapur. The mean day temperatures were below the normal over Assam, East Bengal and Burma, but were excessive elsewhere. The greatest abnormal excess was reported from the two areas where the mean temperature was highest. In these two areas the maximum temperatures were 6° to 8° higher than usual. The night temperatures were in slight defect in parts of the North-Western Provinces, Lower Sind, Kathiawar, Gujarat, Rajputana, Khandesh and Berar, but elsewhere these temperatures also were excessive. A decided fall of temperature occurred over North-East India between the 13th and 20th, and over the south of the Peninsula between the 25th and 30th.

The mean pressure of the Indian area averaged $0.021''$ above the normal. All parts of India, except the north-east, recorded an excess.

As a result of the very early withdrawal of the monsoon the air was abnormally dry over North-Western and Central India and in the Deccan. The deficiency was greatest in the north at Allahabad ($-26^{\circ}/_{10}$) and in the south at Sholapur ($-18^{\circ}/_{10}$). There was more cloud than usual over Burma, East Bengal and the Madras Coast districts, but elsewhere the sky was unusually clear.

September was an abnormally dry month over the greater part of the country. The rainfall was more or less in defect over nearly the whole of Northern and Central India, Berar, the Central Provinces, the Deccan, the West Coast districts, and was in excess only over Southern India, Tenasserim, Arakan, East and North Bengal, and Lower Burma. The periods of most general rainfall were:—1st to 6th when Burma and Bengal received moderate daily rain, and the Central Provinces and the Bombay coast light showers; the 14th to the 20th when Burma and Bengal received heavy rain, the North-Western Provinces, Central Provinces, and Central India showers, and the Deccan and Southern India light to moderate rain.

October.—October like the preceding month was characterised by unusually fine weather over the whole Indian land area. The Bay of Bengal was remarkably free from cyclonic storms; no rain fell over the greater part of the country, so that unusually high temperatures and abnormal dryness of the air prevailed over nearly the whole country. The mean temperature of the month was below the normal in Baluchistan, the Indus Valley, Upper Assam and locally at a few stations in Bengal. It was above the normal over the remainder of India and in Burma. The abnormal excess was over 2° in amount over the whole of the interior of the country and was more than 4° in amount over Berar, the west of the Central Provinces, and the Deccan. The day temperatures were almost everywhere excessive and at several stations by large amounts. At Allahabad there was an excess of over 9° , and at Poona, Khandwa, and Akola of over 8° . The night or minimum temperatures on the contrary exhibited a marked deficiency over Central Bengal, North Bihar, the east of the North-Western Provinces, and the Central Provinces.

The mean pressure of the month was in excess in all provinces of India, most marked in the Madras Coast districts.

The mean humidity of the month was practically normal around the Bay, but over the whole of the remainder of India the air was unusually dry, in fact in the interior of the country the month was the driest on record for the season of the year. There was more cloud than usual in two areas, *viz.*, the Bay area and over Baluchistan, Sind, and the Punjab.

Practically no rain fell over Deltaic and Central Bengal, Orissa, Chota Nagpur, Bihar, the North-Western Provinces, Rajputana, Central India, Berar, the Central Provinces and a large part of the Deccan and the Punjab, and the rainfall was more or less in defect over the remainder of India except South Madras and Burma. The deficiency was large and important over North-East India and the greater part of the Peninsula where the rainfall of this month is ordinarily heavy.

November.—The scanty rainfall which characterised October continued during the early part of November, but, after the middle of the month, the weather became unsettled and showery, and with this change temperature became unsteady, and more particularly in the north-west and centre subject to large diurnal changes. The mean temperature of the month was in general defect in Burma, Assam and East and North Bengal, and in general excess elsewhere. The abnormal excess was large over the central parts of the country (Akola, $+7.5^{\circ}$), considerable in Upper India and the Peninsula, and slight over Bengal. The mean day temperature was normal or in slight defect in parts of Assam, Burma, the Madras Coast and the Punjab, normal or in slight excess over the remaining portions of Northern India and in the south of the Peninsula, and in considerable to large excess elsewhere. The mean night temperature was lower than usual over Burma, Assam and Bengal, and higher than usual in all other places. The abnormal excess was absolutely largest at Akola (8.6), but was large all over the central parts of the country. On the 22nd when, as mentioned above, the temperature changes were rapid, the day temperature in Sind and Rajputana was 14° and in Gujarat and the Central Provinces 9° below the normal, while in the Central Provinces the night temperature was 15° above it.

The mean pressure of the whole month was nearly normal. During the first ten days, the pressure as in October was above the normal, but subsequently the barometer fell to considerably below the average.

The mean humidity of the month exhibited only slight variations from the normal generally, but was on the whole in defect. The sky was more cloudy than usual in all parts of India except Burma, Bengal and Orissa, where the amount of cloud was normal, and in Assam where it was deficient.

The fine dry weather which characterised October continued during the early part of the month of November, the weather having been practically rainless from the 1st to

10th. Thereafter heavy rain fell steadily in the south, and showers occurred in the North-West and Centre. The rainfall of the month was largely in defect over Burma, Orissa and North Madras; slightly in defect over the greater part of Bengal and of the Punjab (except the South-East); in slight excess over West Bengal, the Gangetic Plain, the South-East Punjab, and the West Coast districts; it was in considerable to large excess over the Central districts and Gujarat, Kathiawar and Rajputana; and in very large excess in South Madras. The chief periods of rainfall were:—1st to 10th, when scattered showers were received in parts of Burma, the Punjab and Southern India; the 10th to the 28th, when daily heavy rain was received in South Madras, the 13th and 14th, when showers fell in Upper Burma, Assam and part of Bengal; the 19th to 24th, when rain was received over the West Coast districts, the North-Western Provinces and West Bengal; and the 27th to 29th when rain fell over the West and North of the Punjab and the North-West Himalayas.

December.—The weather was very disturbed over the South of the Peninsula throughout the month and was slightly disturbed over North-West and Central India during the last ten days of the month. The fine weather over the centre of the country for the first twenty days resulted in a higher temperature than usual for the month over that area. The mean temperature of the month was lower than usual in the North-West and North-East and higher than usual elsewhere. The abnormal deficiency was generally small, while the abnormal excess was on the contrary generally large and in the Deccan and the West of the Central Provinces varied between 5° and 7° . The mean day temperatures were in slight to considerable excess except in Gujarat, South Madras, Deltaic Burma, the Punjab, Rajputana and the South Gangetic Plain where they were in defect. The mean night or minimum temperatures exhibited the same general distribution as the mean temperatures, having been lower than usual in the North-West and North-East and above elsewhere. As was the case in November, the temperature was very unsteady during the month, and large daily changes occurred over considerable areas.

The mean pressure was again excessive throughout the whole country.

The air was drier than usual during December all over Northern India, while it was damper in Southern India. Elsewhere the variations were irregular. The cloud variations showed a considerable excess of cloudiness in South India and a slight excess in other parts of the Peninsula as well as over Bengal, Orissa, the Gangetic Plain and Chota Nagpur.

The month was abnormally wet over a considerable part of the country and the distribution of the rainfall was irregular and unusual owing to the exceptional character and paths of the disturbances which affected the weather. In the south the weather throughout the month was rainy and unsettled, and in the north and centre unsettled showery weather commenced about the 20th. North-East India, including Ganjam, the centre and west of the Punjab, Sind, the Central Provinces and the West Coast districts were beyond the influence of these disturbances and had less rain than usual. The chief periods of rainfall were the 4th to 11th, when heavy rain fell over Southern India; the 6th and 7th, when showers fell in Upper Burma; the 16th to 20th when heavy rain again fell in the south; the 24th and 25th when showers were received over the Central Provinces, Central India, Rajputana, the Punjab, the North-Western Provinces and West Bengal, and the 27th to 31st, when moderate to heavy showers fell over the Central Provinces, Central India, Rajputana, the Punjab, the North-Western Provinces and West Bengal.

Year.—During the year 1896, the weather was more settled than usual. The cold weather rains though normal in the Punjab failed in other parts of the country. The south-west monsoon commenced late and ended early, and, though the weather was disturbed in the North-West in December and was very rainy in the same month in Southern India, the reduction of temperature following was only temporary and partial. During the cold weather period the mean temperature was normal in Madras, the West Coast districts and Assam and was in excess elsewhere. Warm and cold waves passed across the country between the 10th and 15th of February and between the 22nd February and March 1st. During the hot weather period the mean temperature was in excess over the whole of India, though during May there occurred a reduction of temperature to below the normal in Burma. The abnormal excess was more than 5° in parts of the Punjab and North-Western Provinces in May, but was most marked in the central parts of the country in March and April. A very hot period occurred in Northern India between the 27th and 31st of May. The monsoon was not established on the Bombay Coast until the end of the second week in June; hence the first fortnight of June was characterised by intense

heat over the whole of Northern and Central India when maximum temperatures between 113° and 123° were recorded. The rainfall of the monsoon period was more or less steadily in defect, and the mean temperature more or less above the normal everywhere during this period. The greatest abnormal excess was in the Punjab. During the concluding period of the year the mean temperature was in general excess in October and November, but was slightly below the normal in Upper India in December. The area, in which the excess of temperature was most pronounced during this period, included the Bombay Deccan, Berar and Khandesh, where for the whole period it averaged 5.4° above the normal.

The pressure variations for the year were everywhere small. There was a slight deficiency over Burma, North-East India and the Gangetic Plain, and a slight excess over North-West India and the Peninsula.

The mean humidity of the whole of India for the whole year was below the normal, and the year was the driest on record. This abnormal dryness was largely the result of the high temperature prevailing, as the mean amount of aqueous vapour in the air was nearly normal. The low humidity was very persistent throughout the year, as the records show that the relative humidity values were below the normal in every month of the year in Bengal and Malabar, and in eleven months in the Konkan and the Gangetic Plain. The sky was less cloudy than usual for the whole year, but the deficiency occurred mainly during the first five months, as during the latter half of the year the amount of cloud increased, and at the close of the year was somewhat above the normal.

The rainfall of the whole year for the whole Indian region was 4.83 below the normal which was $1\frac{1}{2}$ " more than the deficiency in 1895. The deficiency was chiefly due to the lightness of the rainfall during the south-west monsoon period, but it is noteworthy that throughout nearly the whole year the rainfall was abnormally light. During the cold weather period (January and February) the rainfall was very scanty except in Burma, Assam and Central Madras. During the hot weather period the rainfall was abundant, and in places in excess of the normal over North and East Bengal, Tenasserim, Lower Burma and the Assam Valley, but elsewhere the rainfall was less than usual. In March the weather was less disturbed than usual, in April thunderstorms were numerous in Assam, but elsewhere the rainfall was scanty, and in May the weather was hotter and drier than the normal except over part of North-East India. During the south-west monsoon period, the rainfall was considerably below the normal almost everywhere, the most noteworthy features of this period being (1) the general deficiency of rain over the whole of Northern and Central India and in Upper and Central Burma, and (2) the unusually early cessation of the rains over this area. In July and August, Orissa, the Central Provinces, Khandesh, Gujarat and Kathiawar received heavy downpours due to local causes.

In the last three months of the year the rainfall was in excess in Tenasserim and Southern India due to disturbances which affected the more southern districts of the Indian region. It was in defect in all other parts for the whole period, though both North-Western and Central India received somewhat heavier rain than usual from shallow diffused disturbances, both in November and December.

Appendix to Section I.

TABLE I.—Showing the Monthly BAROMETRIC PRESSURE and its variation from the average in thirty-four stations of India during 1896.

STATIONS.	JANUARY.		FEBRUARY.		MARCH		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.	
	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.
Calcutta (Alipore)	30.005	—'011	29.919	—'033	29.811	—'044	29.686	—'057	29.663	+ '002	29.528	—'018	29.499	—'039	29.571	—'025	29.691	+ '005	29.879	+ '044	29.941	—'008	30.055	+ '034
Narayan-ganj	29.995	—'019	29.913	—'034	29.813	—'037	29.707	—'049	29.700	+ '013	29.563	—'019	29.531	—'034	29.605	—'011	29.697	—'009	29.870	+ '037	29.931	—'006	30.041	+ '039
Chittagong	29.930	—'015	29.874	—'031	29.793	—'037	29.699	—'049	29.670	—'002	29.535	—'032	29.502	—'057	29.576	—'029	29.656	—'020	29.813	+ '027	29.870	+ '003	29.965	+ '030
Sibsagar	29.707	—'025	29.635	—'035	29.530	—'059	29.451	—'047	29.436	+ '010	29.279	—'023	29.225	—'061	29.306	—'026	29.392	—'037	29.582	+ '015	29.660	—'016	29.761	+ '031
Silchar	29.933	0	29.866	—'027	29.771	—'034	29.684	—'039	29.660	+ '010	29.520	—'019	29.478	—'048	29.558	—'017	29.636	—'010	29.806	+ '031	29.864	—'010	29.964	+ '040
Cuttack	29.945	—'013	29.865	—'033	29.757	—'045	29.635	—'061	29.589	—'013	29.481	—'020	29.449	—'046	29.507	—'044	29.644	+ '023	29.824	+ '041	29.879	—'013	29.989	+ '023
Hazaribagh	27.972	—'008	27.914	—'025	27.836	—'030	27.727	—'047	27.665	—'022	27.559	—'018	27.544	—'025	27.597	—'023	27.732	+ '021	27.900	+ '033	27.942	—'015	28.018	+ '024
Patna	29.853	—'013	29.755	—'046	29.623	—'054	29.488	—'059	29.455	+ '017	29.341	—'008	29.327	—'028	29.396	—'021	29.518	+ '001	29.694	+ '010	29.792	—'025	29.909	+ '026
Darjeeling	29.970	+ '003	22.927	—'009	22.948	+ '001	22.923	—'007	22.931	+ '017	22.859	0	22.845	—'016	22.896	—'003	29.324	—'024	23.027	+ '008	23.010	—'022	23.032	+ '020
Allahabad	29.728	—'003	29.644	—'034	29.518	—'036	29.316	—'046	29.310	—'014	29.191	—'011	29.129	—'027	29.209	—'009	29.324	+ '001	29.510	+ '014	29.611	—'014	29.720	+ '032
Lucknow	29.665	—'006	29.578	—'037	29.454	—'045	28.953	—'042	28.968	—'015	28.759	—'008	28.753	—'014	28.840	+ '007	28.949	+ '009	29.138	+ '020	29.233	—'013	29.333	+ '035
Meerut	29.270	—'014	29.207	—'025	29.090	—'027	28.953	—'042	28.968	—'015	28.759	—'008	28.753	—'014	28.840	+ '007	28.949	+ '009	29.138	+ '020	29.233	—'013	29.333	+ '035
Delhi*	29.316	—'020	29.251	—'032	29.160	—'024	29.021	—'038	29.050	—'029	28.833	—'025	28.815	—'008	28.895	—'005	29.015	+ '010	29.193	+ '018	29.291	—'007	29.384	+ '028
Agra	29.468	—'012	29.403	—'024	29.285	—'026	29.145	—'047	29.052	—'029	28.929	—'033	28.909	—'005	28.780	+ '005	28.930	+ '041	29.092	+ '039	29.167	—'007	29.265	+ '039
Jhansi*	29.210	—'003	29.143	—'014	29.061	—'017	28.929	—'032	28.854	+ '004	28.705	—'033	28.709	+ '005	28.780	+ '014	28.176	+ '051	28.315	+ '023	28.363	—'032	28.451	+ '016
Ajmere	28.405	—'003	28.359	—'014	28.280	—'003	28.164	—'021	28.099	+ '017	27.947	—'035	27.952	+ '001	28.034	+ '014	28.176	+ '051	28.315	+ '023	28.363	—'032	28.451	+ '016
Saugor	28.189	+ '004	28.140	—'003	28.051	—'016	27.948	—'033	27.890	+ '013	27.747	—'038	27.754	—'009	27.806	—'016	27.973	+ '061	28.102	+ '032	28.136	—'029	28.233	+ '035
Jubbulpore	28.658	+ '004	28.595	—'035	28.503	—'039	28.398	—'041	28.334	—'001	28.219	—'025	28.218	—'015	28.289	—'005	28.444	+ '065	28.578	+ '040	28.620	—'023	28.715	+ '028
Mooltan	29.620	—'007	29.573	—'012	29.462	—'003	29.303	—'031	29.169	—'020	29.011	—'026	29.022	0	29.111	+ '014	29.243	+ '008	29.461	+ '026	29.565	—'023	29.674	+ '027
Lahore	29.317	—'011	29.264	—'021	29.164	—'006	29.008	—'036	28.888	—'019	28.760	—'010	28.763	—'010	28.849	+ '003	28.972	+ '003	29.179	+ '027	29.269	—'016	29.380	+ '029
Peshawar.	28.932	—'011	28.886	—'022	28.819	+ '005	28.678	—'013	28.537	—'012	28.357	—'023	28.357	—'002	28.452	+ '022	28.584	+ '001	28.821	+ '041	28.895	—'009	28.992	+ '029
Ranikhet	24.133	+ '023	24.096	+ '012	24.086	+ '001	24.050	—'013	24.034	+ '018	23.941	+ '005	23.923	+ '005	23.970	+ '022	24.042	+ '012	24.167	+ '051	24.165	+ '018	24.185	+ '043
Chakrata.	23.341	+ '014	23.307	+ '011	23.312	+ '004	23.288	—'016	23.282	+ '020	23.186	—'004	23.173	+ '014	23.222	+ '012	23.282	+ '008	23.393	+ '033	23.380	+ '012	23.382	+ '019
Indore*	28.218	+ '018	28.182	+ '014	28.108	—'004	28.025	?	27.999	+ '050	27.828	—'023	27.828	+ '010	27.900	+ '021	28.053	+ '086	28.162	+ '053	28.166	—'021	28.258	+ '034
Deesa	29.542	+ '003	29.522	+ '016	29.415	—'009	29.299	—'028	29.254	+ '036	29.084	—'039	29.108	+ '012	29.190	+ '017	29.332	+ '054	29.454	+ '037	29.469	—'040	29.586	+ '030
Kurrachee	30.032	—'018	30.003	—'018	29.899	—'019	29.786	—'033	29.722	+ '031	29.502	—'054	29.528	+ '005	29.608	—'003	29.764	+ '024	29.924	+ '031	29.965	—'036	30.096	+ '029
Bombay	29.954	+ '002	29.955	+ '031	29.857	—'019	29.788	—'023	29.808	+ '042	29.626	—'043	29.677	+ '009	29.749	+ '022	29.834	+ '049	29.890	+ '048	29.875	—'025	29.964	+ '016
Belgaum	27.438	+ '002	27.435	+ '018	27.359	—'025	27.314	—'010	27.333	+ '042	27.220	—'029	27.258	+ '015	27.302	+ '027	27.338	+ '023	27.405	+ '056	27.383	—'006	27.455	+ '021
Nagpur	28.977	+ '012	28.899	—'011	28.802	—'021	28.699	—'030	28.637	+ '003	28.543	—'020	28.537	—'024	28.615	+ '003	28.745	+ '067	28.876	+ '035	28.912	—'023	29.006	+ '027
Bellary	28.509	+ '020	28.477	+ '034	28.381	—'006	28.315	—'005	28.317	+ '040	28.248	—'018	28.281	0	28.327	+ '028	28.360	+ '026	28.435	+ '053	28.434	—'009	28.524	+ '036
Bangalore	26.985	+ '001	26.981	+ '012	26.922	—'018	26.872	—'019	26.875	+ '027	26.804	—'029	26.840	—'002	26.870	+ '014	26.884	0	26.952	+ '045	26.935	—'009	27.003	+ '024
Madras	30.006	+ '004	29.974	+ '006	29.887	—'021	29.805	—'018	29.749	+ '014	29.686	—'015	29.719	—'003	29.769	+ '022	29.801	+ '027	29.911	+ '072	29.904	—'001	30.003	+ '028
Rangoon	29.941	—'001	29.911	—'002	29.843	—'025	29.779	—'024	29.765	+ '007	29.719	—'019	29.713	—'024	29.763	+ '006	29.783	+ '006	29.860	+ '013	29.893	—'003	29.982	+ '044
Akyab	29.937	—'011	29.955	+ '001	29.881	—'022	29.809	—'023	29.759	—'002	29.647	—'030	29.624	—'048	29.694	—'018	29.755	—'009	29.885	+ '032	29.935	+ '010	30.027	+ '037

* The barometric means of these stations are the means of 8 hours only.

Appendix to

TABLE II.—*Showing the Highest, Lowest and Mean TEMPERATURE in shade and its*

STATIONS.	JANUARY.				FEBRUARY.				MARCH.				APRIL.				MAY.				JUNE.			
	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.
Calcutta (Alipore)	82°9	47°5	65°1	−0°1	98°5	52°4	73°4	+3°6	101°2	63°1	81°9	+2°5	106°8	70°0	88°1	+3°3	99°3	70°4	85°7	+0°6	93°9	72°7	83°0	−1°7
Narayanganj .	81°0	51°5	66°4	+0°4	93°7	54°1	72°7	+2°8	100°2	61°3	80°9	+2°4	101°0	64°6	84°1	+1°8	94°3	66°5	82°1	−0°5	92°4	72°1	82°8	−0°3
Chittagong .	81°6	49°3	65°7	−0°4	86°3	55°2	71°4	+1°3	94°1	61°9	77°5	+0°7	97°5	67°0	82°1	+1°6	91°4	68°0	81°0	−0°1	91°8	72°1	80°7	+0°2
Sibsagar . .	74°3	41°0	57°0	−0°8	81°3	43°1	61°3	+0°2	86°6	52°9	68°0	+0°4	87°2	64°0	73°3	+0°2	93°0	62°5	78°3	+1°0	97°0	72°4	83°2	+1°7
Silchar . .	81°4	45°8	63°2	−0°1	86°6	52°2	67°7	+0°8	92°1	58°4	74°7	+1°3	95°3	63°6	78°2	+0°5	96°4	63°8	80°1	+0°6	96°2	70°3	83°0	+1°4
Cuttack . .	89°5	51°6	69°4	−1°4	102°2	58°6	78°3	+2°2	105°4	68°1	84°8	+2°8	110°8	73°4	89°8	+3°3	110°3	72°6	89°5	+1°8	99°4	74°4	83°8	−2°0
Hazaribagh .	79°9	46°0	61°5	+0°7	92°2	50°1	69°0	+3°4	100°2	58°3	79°2	+3°7	106°9	68°2	88°6	+4°0	108°6	67°7	89°3	+4°1	99°9	67°8	80°5	−1°7
Patna . .	80°1	46°2	61°9	+1°4	94°4	49°8	68°3	+3°2	104°7	57°8	81°2	+4°0	108°8	67°2	89°0	+2°4	109°3	71°2	87°5	+0°3	104°4	69°6	86°2	−1°0
Darjeeling . .	55°2	29°7	40°9	+1°7	59°9	30°6	40°9	+0°2	65°5	40°2	51°0	+2°7	73°9	43°9	56°6	+2°9	67°9	44°6	57°4	+1°5	71°9	50°6	60°0	+0°2
Allahabad . .	84°7	41°4	60°4	−0°1	96°6	46°5	68°7	+3°3	104°4	54°8	79°9	+1°6	112°0	62°4	90°0	+2°4	115°0	76°4	96°1	+4°2	111°6	72°2	89°3	−1°6
Lucknow . .	83°9	39°6	61°0	+0°1	94°7	45°4	67°7	+2°2	103°5	52°4	78°7	+2°2	110°3	64°1	89°6	+2°2	113°6	71°4	94°5	+3°7	107°3	77°3	90°1	−1°5
Meerut . .	79°3	39°3	58°2	+2°1	87°5	44°6	62°9	+1°9	98°5	50°8	73°8	+2°3	108°2	58°2	85°3	+3°0	112°4	69°8	91°7	+3°5	108°7	73°7	89°2	−1°9
Delhi* . .	83°0	40°9	61°3	+1°8	85°0	46°4	64°8	+1°4	98°2	55°9	77°0	+1°9	109°5	62°4	88°7	+1°8	114°0	69°9	94°8	+3°1	111°0	70°9	91°1	−2°8
Agra . .	84°0	44°5	61°5	+1°4	89°6	47°9	67°1	+2°8	102°6	55°4	77°9	+1°6	110°1	61°9	89°3	+1°3	113°8	74°1	96°2	+3°0	112°4	78°3	92°9	−1°7
Jhansi* . .	87°1	45°9	65°3	+2°0	95°1	52°9	72°4	+4°9	105°6	61°9	82°7	+3°4	113°2	68°9	93°6	+3°8	115°7	82°4	99°9	+5°1	113°7	73°9	93°1	−0°5
Ajmere . .	82°9	36°9	60°2	+2°0	88°6	39°9	67°0	+5°3	103°7	46°8	76°4	+2°2	109°9	55°0	89°1	+4°5	110°2	72°1	94°4	+4°8	108°9	73°6	89°0	+0°7
Saugor . .	86°5	45°2	65°4	?	94°0	49°3	71°4	+4°2	103°7	56°3	80°8	+2°7	111°4	60°1	87°8	+1°1	112°4	74°1	93°4	+3°8	107°3	73°2	86°1	+0°4
Jubbulpore . .	86°7	36°9	61°0	−0°6	96°0	43°2	69°6	+3°4	104°5	50°3	80°0	+3°1	111°6	58°5	88°9	+2°7	113°0	71°6	94°4	+3°5	109°0	72°7	85°8	−0°3
Mooltan . .	79°1	42°2	57°5	+3°5	85°8	41°6	60°9	+2°5	97°3	51°7	73°5	+2°5	111°9	55°4	85°7	+3°5	117°7	73°1	96°1	+6°1	119°5	81°6	98°6	+4°5
Lahore . .	75°3	36°4	55°6	+3°7	80°9	40°2	59°4	+2°8	92°1	48°8	70°6	+1°7	106°6	53°6	82°0	+1°1	114°1	72°1	93°4	+6°4	117°0	75°6	95°0	+4°0
Peshawar . .	75°1	30°9	50°9	+1°3	76°1	37°4	53°9	+1°6	84°1	44°9	63°8	+0°6	100°0	54°0	75°1	+2°3	113°5	65°0	87°2	+4°8	118°0	74°2	94°2	+4°6
Ranikhet . .	67°5	30°5	46°4	+0°2	64°9	32°5	47°3	−0°2	77°4	43°1	59°3	+2°6	83°8	50°5	68°1	+3°4	87°3	52°4	72°6	+5°1	82°3	55°9	69°2	−1°6
Chakrata . .	61°3	26°0	42°5	+0°7	59°6	28°3	41°7	−1°0	72°1	38°6	52°5	+1°0	77°1	44°5	61°7	+2°0	80°7	47°3	66°6	+2°1	75°9	53°6	65°4	−1°9
Indore* . .	85°7	44°1	64°9	+0°3	95°2	44°1	69°5	+2°5	103°6	52°6	78°1	+1°6	110°0	56°1	87°8	+3°1	109°0	70°1	91°5	+2°6	105°0	71°6	85°7	?
Deesa . .	91°9	49°4	69°7	+2°2	96°3	45°6	71°9	+1°5	111°0	53°1	82°1	+1°3	114°7	61°0	91°8	+4°5	112°3	72°0	92°8	+1°7	111°6	75°0	83°8	−1°2
Kurrachee . .	87°7	52°7	68°6	+3°6	87°6	50°4	70°9	+2°7	94°3	59°4	76°7	+1°2	104°0	63°2	81°9	+2°2	96°2	77°1	84°5	+0°6	105°5	75°9	87°7	+0°8
Bombay . .	88°7	65°8	75°8	+2°7	85°5	65°4	75°4	+0°3	91°9	69°4	79°7	+0°9	94°8	76°2	84°2	+1°6	93°3	79°3	86°1	+1°4	92°9	75°0	83°3	+0°1
Belgaum . .	89°1	52°4	70°1	+0°2	92°4	55°5	73°4	+0°6	101°2	60°1	78°5	+1°3	102°6	64°8	80°6	+1°3	102°3	66°2	78°3	+0°7	90°0	65°9	73°3	+0°9
Nagpur . .	89°0	48°1	68°1	−0°1	100°3	53°4	76°8	+3°0	109°2	62°1	86°3	+2°7	113°6	68°9	94°0	+3°7	115°9	79°8	98°2	+4°0	108°7	73°7	85°6	−0°2
Bellary . .	92°5	55°4	72°7	−0°5	98°7	60°2	80°0	+0°4	105°2	64°5	86°5	+0°7	109°0	75°7	91°4	+2°0	107°2	65°7	89°0	+0°4	100°6	71°9	82°8	0
Bangalore . .	87°7	51°4	67°9	+0°1	91°2	53°4	72°7	+1°1	94°5	60°9	77°9	+0°9	98°6	67°8	82°8	+1°8	97°3	64°5	80°1	+1°0	92°8	65°7	75°3	+0°6
Madras . .	87°6	61°7	74°8	−0°7	95°7	63°1	76°8	−0°3	95°3	66°0	80°5	−0°3	99°6	73°5	84°7	−0°1	112°4	76°6	89°4	+2°2	103°3	74°8	88°9	+1°7
Rangoon . .	93°3	57°6	74°8	+1°0	97°2	60°6	77°0	+1°0	101°8	65°1	81°6	+1°4	104°2	73°9	86°7	+2°2	102°4	73°9	82°0	−1°0	92°3	75°1	80°1	+0°8
Akyab . .	82°3	52°8	69°4	−0°8	89°7	58°2	73°2	+0°9	93°7	62°2	78°7	+0°6	96°0	67°9	84°4	+1°6	96°2	71°3	84°3	+1°0	89°2	75°4	80°9	−0°4

* The mean temperature for

Section I.

variation from the average of each month in thirty four stations of India during 1896.

JULY.				AUGUST.				SEPTEMBER.				OCTOBER.				NOVEMBER.				DECEMBER.				STATIONS.
Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	
91°9	77°5	83°5	+0°5	89°8	75°6	83°1	+0°7	93°0	72°7	82°9	+0°6	91°7	69°4	80°9	+1°0	89°7	58°0	73°7	+1°4	83°7	45°4	65°7	+0°5	Calcutta (Alipore).
92°7	77°5	84°2	+1°0	92°1	76°2	83°7	+1°0	94°1	74°2	83°2	+0°3	91°4	71°3	82°5	+2°2	90°9	58°6	74°9	+0°4	81°3	49°0	67°0	-0°5	Narayanganj.
90°7	75°1	81°0	+1°0	90°0	75°1	80°6	+0°9	91°7	74°9	81°0	+0°5	91°2	64°7	79°3	+0°2	90°2	58°2	74°2	+0°2	83°6	49°1	67°2	-0°2	Chittagong.
97°6	76°2	83°9	+0°7	94°7	74°3	81°8	-0°7	90°5	72°8	80°1	-0°7	90°4	64°2	75°6	-0°6	79°5	50°3	65°6	-2°0	77°3	43°2	59°4	+0°4	Sibsagar.
103°8	75°8	84°4	+2°2	99°1	75°2	83°6	+1°2	97°4	72°3	82°1	+0°6	94°0	65°2	80°0	+0°9	91°3	54°4	72°6	0	84°3	45°8	65°8	+0°1	Silchar.
96°0	75°0	82°4	+0°1	94°4	75°4	82°4	-0°2	95°4	75°0	83°5	+1°0	96°1	68°6	82°2	+1°5	94°5	63°0	77°8	+3°2	90°6	51°9	71°0	+1°6	Cuttack.
90°4	71°3	79°0	+0°8	88°2	71°3	78°2	+1°0	89°2	68°3	78°5	+1°6	91°6	64°4	76°6	+3°3	87°1	54°2	69°4	+2°7	78°7	46°3	61°9	+2°0	Hazaribagh.
56°3	76°6	84°8	+0°6	96°3	76°6	84°8	+1°2	96°6	73°2	84°6	+1°1	98°0	65°3	81°3	+2°1	92°0	55°4	71°8	+1°5	77°9	43°7	62°3	-0°1	Patna.
75°3	56°6	62°5	+1°5	71°2	55°7	61°1	+0°5	67°8	50°7	59°1	+0°6	65°0	45°6	54°3	-0°2	58°5	30°8	46°7	-0°8	58°6	31°6	41°2	-0°7	Darjeeling.
99°6	74°6	85°5	+1°0	96°5	76°6	84°6	+1°3	102°0	72°3	87°7	+4°6	105°1	62°0	81°5	+3°6	96°1	53°4	71°5	+4°1	82°8	38°7	60°9	+1°1	Allāhabad.
102°2	72°1	86°5	+0°9	98°4	75°5	85°2	+1°2	102°3	69°4	87°0	+3°1	104°0	57°7	79°6	+1°8	90°6	50°4	69°4	+2°5	82°3	39°0	59°5	-0°2	Lucknow.
101°9	75°9	86°9	+1°5	96°5	72°9	84°7	+0°7	99°3	68°8	85°6	+2°7	99°5	55°9	77°1	+1°4	87°5	49°6	65°9	+2°2	77°8	36°4	56°9	-0°3	Meerut.
104°2	73°4	87°6	?	99°2	75°4	85°6	+0°3	100°2	68°4	87°9	+3°3	99°2	60°4	81°1	+1°2	87°2	51°4	68°9	?	79°2	38°9	59°4	?	Delhi.
107°0	75°8	88°7	+1°8	101°0	76°6	86°8	+1°8	103°0	72°0	88°7	+5°3	106°0	61°9	82°2	+3°0	93°0	54°4	70°2	+2°5	81°0	40°9	60°9	-0°1	Agra.
162°6	74°4	86°2	+1°7	94°6	75°4	83°6	+1°0	102°1	72°4	87°0	+3°9	105°1	67°4	85°4	+5°4	94°1	56°4	74°4	+4°0	85°0	44°9	64°4	+0°1	Jhansi.*
97°6	73°9	83°3	+1°4	90°4	72°6	80°0	+0°3	100°4	68°1	82°1	+0°5	100°4	56°5	78°2	+2°2	93°4	50°7	68°4	+3°8	80°4	36°9	57°9	-1°1	Ajmere.
96°1	72°6	79°4	+1°8	87°7	70°6	77°0	+0°5	96°3	66°9	79°0	+1°8	97°9	59°1	79°9	+4°8	90°7	57°9	73°8	+4°3	89°3	45°6	64°5	+2°4	Saugor.
92°6	70°7	80°2	+1°1	88°6	70°4	77°8	-0°2	95°6	63°9	80°0	+1°4	97°8	56°1	77°0	+3°1	93°3	53°7	72°1	+5°7	85°2	38°6	62°7	+2°0	Jubbulpore.
112°9	?	?	?	108°9	76°0	92°7	+3°0	105°4	73°0	89°3	+2°3	105°4	55°9	79°1	+1°9	92°3	42°2	68°3	+3°2	81°9	37°0	56°4	+0°3	Mooltan.
109°6	75°3	92°9	+4°9	104°5	73°7	89°1	+2°7	103°6	66°8	88°3	+4°8	100°0	52°8	77°2	+2°2	85°6	45°2	65°1	+3°1	74°9	34°4	53°8	-0°1	Lahore.
113°5	73°1	91°9	+2°3	107°0	72°3	88°6	+1°3	104°0	61°5	83°0	+1°2	95°5	47°0	71°2	+0°3	85°1	41°9	58°9	+0°9	73°2	30°5	49°5	-1°1	Peshawar.
83°2	59°9	69°9	+1°8	77°3	60°0	67°3	+0°4	78°0	55°4	66°5	+0°9	76°2	51°3	62°3	+1°4	65°8	42°5	54°2	+0°1	65°8	29°8	48°0	-1°0	Ranikhet.
76°2	57°3	64°6	+0°1	71°0	57°3	63°3	-0°1	70°1	50°3	61°3	-0°4	71°3	43°3	56°8	●	64°5	39°8	50°3	-0°4	65°2	27°4	44°3	-1°5	Chakrata.
92°7	70°1	79°8	+1°6	87°7	68°6	76°2	-0°7	96°2	63°6	77°8	+0°3	97°6	58°6	79°0	+3°6	93°2	54°6	74°2	+6°4	90°7	38°6	66°4	+2°7	Indore.*
101°3	74°0	83°9	+0°1	92°2	73°7	80°4	-1°1	106°2	66°9	82°1	+0°3	105°4	59°1	82°4	+1°8	99°2	54°1	76°7	+3°0	90°4	42°1	67°4	-0°6	Deesa.
97°1	79°6	86°1	+2°1	91°5	75°9	82°9	+1°0	107°9	70°7	82°4	+0°8	103°4	63°0	80°3	+0°8	95°3	52°9	76°3	+2°5	88°4	46°2	65°6	-1°4	Kurrachee.
87°6	75°1	80°6	-0°3	86°1	75°0	79°5	-0°4	90°9	75°0	81°6	+1°9	95°0	76°6	83°6	+2°5	92°8	66°2	80°8	+1°8	90°0	63°2	77°4	+1°5	Bombay.
79°5	65°7	70°7	+0°6	79°1	63°2	69°2	-0°4	88°3	60°3	72°1	+1°7	92°2	60°9	75°3	+3°1	90°5	56°9	74°3	+3°6	87°9	56°8	72°8	+3°5	Belgaum.
97°3	73°7	81°7	+1°7	92°3	71°9	79°1	-1°2	96°1	69°3	82°6	+2°2	99°3	62°5	82°6	+3°9	94°5	60°2	77°2	+4°8	92°2	50°2	70°0	+4°1	Nagpur.
95°9	71°7	80°9	+0°3	96°2	71°0	80°7	-0°3	99°2	71°0	83°2	+3°1	102°2	66°5	82°9	+4°2	96°2	65°5	78°4	+3°2	90°8	58°4	75°0	+2°7	Bellary.
89°0	64°2	73°4	+0°7	89°2	63°2	72°7	-0°2	88°6	63°2	73°9	+1°2	87°3	61°3	74°2	+1°9	87°3	60°9	72°1	+2°3	83°0	57°2	69°3	+1°7	Bangalore.
105°5	74°4	87°8	+2°5	98°2	73°5	83°3	-0°9	99°6	72°7	83°6	-0°2	96°8	68°6	81°4	+0°3	90°3	68°6	78°0	-0°2	86°7	68°3	77°4	+1°4	Madras.
89°5	73°9	78°7	+0°6	88°7	73°6	77°8	-0°5	91°0	73°2	79°0	+0°3	93°9	72°9	80°5	+0°8	89°9	67°0	77°7	-0°3	91°5	60°0	74°9	-0°6	Rangoon.
90°3	74°7	80°1	+0°1	89°1	75°0	79°9	-0°4	90°2	74°4	81°3	-0°2	89°2	68°9	80°5	-1°0	89°2	61°2	76°4	-1°7	85°1	53°1	71°1	-1°3	Akyab.

Appendix to Section I.

TABLE III.—Showing the mean monthly HUMIDITY and its variation from the average in thirty-four Stations of India during 1896.

STATIONS.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.	
	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.
Calcutta (Alipore)	60	-11	54	-14	56	-14	56	-15	71	-5	83	0	87	0	87	-1	83	-4	69	-15	68	-7	62	-10
Narayanganj	68	-1	60	-4	64	-3	68	-5	79	-1	84	-3	84	-3	84	-3	84	-2	72	-8	68	-4	67	-4
Chittagong	74	+1	74	+4	80	+6	75	-2	81	+1	86	0	86	0	86	-2	86	0	81	+1	74	-5	71	-4
Sibsagar	82	-4	83	+2	80	+1	83	+2	85	+3	82	-2	87	+3	88	+4	88	+2	86	0	84	0	85	0
Silchar	71	-3	74	+4	73	+1	79	+3	78	-2	80	-5	82	-3	83	-2	83	-1	72	-8	69	-8	69	-6
Cuttack	58	-7	53	-9	59	-3	56	-6	62	-2	78	+4	82	+2	82	+1	77	-4	63	-12	63	-5	59	-6
Hazaribagh	39	-12	32	-10	23	-11	19	-9	37	-3	69	0	82	-3	84	+1	72	-9	42	-23	55	+1	49	-3
Patna	60	-7	47	-10	28	-17	24	-7	59	+4	69	0	82	0	82	-1	72	-8	56	-14	59	-3	60	-5
Darjeeling	72	-8	85	+6	61	-12	71	-4	91	+4	95	0	91	-4	96	+2	94	0	92	+10	76	-4	79	+3
Allahabad	51	-17	39	-16	26	-16	23	-9	30	-8	61	+6	77	-5	80	+3	54	-26	39	-29	49	-14	53	-14
Lucknow	49	-11	39	-12	33	-10	24	-14	37	-4	62	+7	76	-2	76	0	57	-16	43	-14	55	+1	57	-2
Meerut	56	-8	52	-4	38	-12	24	-14	33	-8	61	+11	72	-2	76	0	52	-17	43	-14	56	+1	56	-6
Delhi*	59	p	59	p	41	p	23	p	33	p	63	p	73	p	77	p	53	p	38	p	54	+8	53	p
Agra	48	-8	43	+1	35	-3	23	-5	31	0	54	+9	71	-4	74	-2	45	-22	34	-15	52	+8	52	-1
Jhansi*	49	p	49	p	30	p	19	p	26	p	57	p	76	p	84	p	58	p	36	p	52	+8	54	+4
Ajmere	51	0	49	+5	40	0	29	-5	34	-4	59	+8	75	+4	82	+6	62	-4	41	-8	54	+8	54	+4
Saugor	33	-15	32	-6	22	-9	18	-8	20	-8	54	+2	81	+2	85	+2	61	-15	31	-25	42	-1	44	-1
Jubbulpore	49	-11	42	-7	31	-7	26	-3	25	-5	64	+5	83	+1	89	+7	69	-8	51	-14	58	+2	62	+5
Mooltan	59	0	54	+1	50	-2	36	-6	32	-10	45	-3	60	-3	66	-3	50	-11	39	-15	47	+2	47	-9
Lahore	64	+3	59	+2	51	+2	31	-6	29	-4	44	+6	58	-3	60	+2	48	-5	40	-7	52	+3	56	-1
Peshawar	62	0	58	+1	59	+2	38	-16	34	-6	79	+15	82	-6	88	+3	49	-12	41	-6	55	+1	59	-2
Ranikhet	60	-2	62	+2	45	-8	34	-10	43	-8	79	+11	82	-6	88	+1	68	-12	46	-15	56	+3	61	+5
Chakrata	47	-15	63	+1	47	-5	27	-16	37	-12	76	+11	91	-1	95	+3	76	-7	46	-12	53	-3	50	-1
Indore*	60	p	53	p	39	p	39	p	51	p	72	p	86	p	89	p	78	p	47	p	53	p	54	p
Deesa	29	-9	34	+5	28	-2	24	-4	36	-3	63	+11	79	+5	82	+7	62	-4	37	-5	43	+9	34	-3
Kurrachee	53	-3	61	+4	71	+6	71	+1	77	+4	77	+3	80	+2	85	+6	83	+6	67	+4	51	-3	45	-11
Bombay	67	-3	67	-2	70	-3	70	-5	71	-3	82	0	86	-1	86	-1	77	-9	74	-6	67	-4	61	-9
Belgaum	45	-1	36	-2	38	-3	54	+4	64	+4	83	+1	90	+1	91	+2	96	-9	63	-9	55	-4	53	+4
Nagpur	49	-2	34	-6	36	+4	32	+4	29	0	60	+5	78	-2	83	+4	61	-14	46	-14	60	+7	55	+3
Bellary	45	-4	31	-6	33	0	36	0	39	-4	52	-6	60	-3	59	-5	52	-13	41	-23	52	-10	58	0
Bangalore	62	+1	43	-9	44	-6	50	-3	60	-2	73	-1	63	-14	77	0	76	0	64	-12	68	-5	72	+3
Madras	77	+3	76	+3	74	0	74	0	65	-4	63	-1	61	-6	74	+3	78	+5	80	+1	89	+9	84	+6
Rangoon	59	-7	61	-2	65	+1	62	-5	80	+3	87	-2	90	0	92	+1	90	+1	86	+1	80	+1	70	-3
Akyab	73	+2	72	+3	78	+6	76	+3	81	+4	89	+3	93	+4	92	+4	90	+5	86	+4	81	+1	78	+3

* Mean of 3 hours only.

Appendix to Section I.

TABLE IV.—Showing the monthly and Annual RAINFALL and its variation from the average in thirty-four Stations of India during 1896.

STATIONS.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		TOTAL.	
	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.
Calcutta (Alipore)	0.03	-0.29	0.02	-1.09	0.15	-1.15	0.05	-1.43	4.35	-1.28	16.42	+5.53	12.08	+0.13	11.02	-1.48	9.05	-0.01	...	-3.70	0.05	-0.69	...	-0.37	53.22	-5.83
Narayanganj	0.04	-0.32	0.53	-0.60	1.19	-1.08	6.53	-0.64	10.99	+4.93	16.70	-0.80	10.08	-5.98	6.06	-5.37	10.91	+5.11	0.04	-4.87	0.01	-0.92	...	-0.19	63.08	-10.73
Chittagong	0.03	-0.44	9.85	+7.93	0.41	-1.75	4.17	-0.78	11.59	+2.81	15.93	-5.40	18.76	-3.87	5.47	-15.01	8.79	-4.43	1.78	-4.00	...	-1.43	...	-0.62	76.78	-26.99
Sibsagar	0.46	-1.11	1.85	-0.33	8.34	+3.58	16.44	+6.52	11.23	-0.17	14.04	-0.16	17.85	+2.00	17.54	+1.36	4.65	-7.14	2.34	-2.66	0.12	-1.00	0.34	-0.25	95.20	+0.64
Silchar	0.81	+0.16	6.60	+4.10	13.22	+5.24	14.77	+0.95	12.55	-3.71	14.95	+5.09	12.47	-7.64	15.21	-3.59	14.62	+0.58	0.62	-5.91	0.74	-0.63	...	-0.58	106.56	-16.06
Cuttack	...	-0.36	...	-0.52	0.50	-1.27	0.49	-0.81	3.42	0	18.33	+9.00	11.91	-0.15	13.90	+3.16	8.22	-0.89	...	-5.46	0.07	-1.44	...	-0.38	56.84	+0.88
Hazariabagh	0.06	-0.46	0.08	-0.71	...	-0.71	...	-0.37	0.19	-1.59	12.96	+4.52	20.21	+6.35	18.83	+5.91	5.27	-2.85	...	-3.36	0.25	-0.09	0.59	+0.39	58.44	+7.03
Patna	0.13	-0.55	...	-0.52	...	-0.36	...	-0.28	1.46	-0.25	7.40	+0.11	9.57	-1.57	11.57	+1.06	3.42	-4.36	...	-2.87	0.74	+0.52	0.26	+0.11	34.55	-8.96
Darjeeling	0.06	-0.65	0.11	-0.99	0.21	-1.68	2.53	-1.61	9.61	+1.73	32.71	+8.18	17.16	-14.20	20.86	-5.48	26.15	+8.45	0.63	-4.85	0.35	+0.10	0.09	-0.11	110.47	-11.11
Allahabad	...	-0.76	...	-0.46	...	-0.41	...	-0.12	0.14	-0.17	4.91	-0.20	7.56	-4.65	7.40	-2.86	0.06	-6.45	...	-2.49	...	-0.26	0.16	+0.03	20.23	-18.80
Lucknow	0.05	-0.83	0.07	-0.32	...	-0.34	...	-0.12	0.12	-0.73	4.40	-1.03	14.16	+2.88	6.38	-5.16	0.01	-6.84	...	-1.39	0.31	+0.22	1.55	+0.18	27.05	-12.48
Meerut	0.11	-1.01	0.48	-0.29	...	-0.67	...	-0.34	0.45	-0.28	3.98	+0.47	10.73	+1.32	5.48	-2.34	0.06	-4.26	...	-0.46	0.13	+0.04	0.46	+0.07	21.88	-7.79
Delhi	0.04	-1.05	1.45	+0.85	0.08	-0.62	...	-0.35	0.53	-0.20	5.40	+2.12	9.01	+0.38	6.35	-1.30	...	-4.27	...	-0.42	0.37	+0.27	0.34	-0.09	23.57	-4.68
Agra	...	-0.57	0.05	-0.24	...	-0.26	0.01	-0.14	0.02	-0.61	1.95	-0.82	5.43	-4.26	3.31	-3.76	0.20	-4.20	...	-0.41	0.32	+0.26	0.59	+0.32	11.88	-14.69
Jhansi	0.04	-0.55	...	-0.28	...	-0.35	0.09	-0.04	0.01	-0.30	7.87	+3.00	13.40	+0.55	9.27	-1.78	0.06	-5.83	...	-0.72	0.68	+0.61	0.45	+0.21	31.89	-5.48
Ajmere	0.07	-0.58	...	-0.31	...	-0.35	...	-0.09	0.23	-0.40	5.66	+3.09	9.85	+2.92	8.44	+2.34	0.07	-2.70	...	-0.29	1.73	+1.52	0.07	-0.22	26.46	+3.87
Saugor	...	-0.68	0.01	-0.51	...	-0.20	...	-0.17	0.05	-0.51	10.93	+3.51	11.43	-5.08	14.70	+2.34	0.07	-7.94	...	-1.27	0.02	-0.31	1.28	+0.71	38.53	-10.11
Jubbulpore	0.01	-0.67	...	-0.49	...	-0.49	...	-0.21	0.05	-0.43	15.07	+6.23	21.93	+3.01	27.98	+13.09	0.37	-7.96	...	-1.64	0.31	-0.09	0.75	+0.49	66.50	+10.84
Mooltan	0.15	-0.27	0.62	+0.27	0.30	-0.16	...	-0.27	...	-0.42	...	-0.43	0.52	-1.81	0.54	-1.00	0.10	-0.55	...	-0.08	...	-0.07	...	-0.27	2.23	-5.06
Lahore	0.39	-0.51	1.29	+0.16	0.37	-0.59	...	-0.55	0.25	-0.58	0.91	-0.97	2.66	-4.09	3.73	-1.22	0.14	-1.96	0.02	-0.44	0.12	-0.01	0.03	-0.43	9.91	-11.19
Peshawar	0.93	-0.59	2.44	+1.21	1.25	-0.62	0.26	-1.52	0.50	-0.10	...	-0.28	0.35	-1.35	0.10	-2.11	...	-0.67	...	-0.20	1.06	+0.42	...	-0.54	6.94	-6.35
Ranikhet	1.15	-1.48	1.31	-0.82	0.29	-1.66	0.40	-0.77	1.34	-1.20	10.84	+4.50	8.84	-4.34	15.93	+2.38	0.51	-6.48	0.18	-1.28	0.44	+0.16	2.33	+1.48	43.56	-9.51
Chakrata	...	-3.00	1.82	-1.55	1.55	-1.21	0.49	-0.95	2.26	-0.29	11.14	+2.81	21.71	+2.88	17.37	-0.37	2.61	-3.70	0.95	+0.10	0.83	+0.45	2.37	+1.26	63.10	-3.57
Indore	...	-0.28	...	-0.26	0.01	-0.04	...	-0.18	0.43	-0.08	4.65	-2.00	9.67	0	12.34	+4.75	0.32	-7.31	...	-1.21	0.02	-0.26	0.54	+0.34	27.98	-6.53
Deesa	...	-0.16	...	-0.15	...	-0.09	...	-0.04	...	-0.17	5.27	+2.81	9.59	-0.10	10.27	+2.41	0.10	-3.50	...	-0.62	1.39	+1.24	...	-0.04	26.53	+1.59
Kurrachee	...	-0.73	0.01	-0.31	...	-0.16	...	-0.14	...	-0.04	7.30	+6.79	0.66	-3.16	5.71	+2.81	...	-0.65	...	-0.05	...	-0.18	...	-0.19	13.08	+3.99
Bombay	...	-0.13	...	-0.02	...	-0.01	...	-0.03	0.26	-0.33	27.79	+7.17	36.33	+11.52	21.11	+6.05	1.62	-9.29	...	-1.81	0.53	+0.03	...	-0.05	87.64	+13.19
Belgaum	...	-0.07	...	-0.03	0.09	-0.39	1.52	-0.47	1.64	-1.11	16.38	+7.07	24.11	+8.69	15.78	+6.60	1.12	-2.63	2.50	-2.76	0.90	-0.50	0.39	+0.13	64.43	+14.53
Nagpur	...	-0.61	...	-0.39	0.17	-0.44	0.12	-0.33	0.03	-0.68	11.96	+3.22	17.97	+4.41	18.33	+8.74	2.30	-5.89	...	-2.29	0.57	+0.02	0.14	-0.32	51.59	+5.44
Bellary	...	-0.11	...	-0.03	...	-0.46	0.34	-0.42	6.03	+4.07	0.83	-1.02	0.64	-0.79	0.61	-1.68	0.09	-3.69	...	-2.95	2.76	+0.50	...	-0.22	12.48	-5.80
Bangalore	0.03	-0.16	...	-0.13	0.59	+0.03	0.17	-1.16	4.81	+0.09	2.16	-1.13	1.67	-2.35	3.21	-2.59	7.77	+1.63	2.23	-4.07	5.48	+3.33	0.29	-0.34	28.41	-6.85
Madras	0.13	-0.73	...	-0.28	...	-0.39	...	-0.61	...	-2.03	1.49	-0.58	2.05	-1.79	6.11	+1.46	5.97	+1.27	2.97	-7.87	32.75	+19.20	17.21	+11.88	68.68	+19.53
Rangoon	...	-0.12	0.80	+0.53	...	-0.18	0.01	-1.81	10.21	-0.58	18.39	-0.23	18.02	-3.58	28.32	+9.64	21.47	+5.34	8.81	+1.53	2.08	-0.68	...	-0.07	108.11	+9.79
Akyab	...	-0.14	1.40	+1.21	...	-0.46	1.60	0	7.63	-5.03	50.03	+0.60	66.68	+15.28	38.15	-1.10	27.46	+4.52	3.27	-8.12	0.65	-2.73	...	-0.48	196.87	+3.55

SECTION II.
EUROPEAN ARMY OF INDIA.

2. The health of the European army of India was better in 1896 than in the preceding year, though invaliding increased somewhat.

The weather characteristics of the year 1896 are summed up in Section I, pages 7 and 8. There was less air-humidity than usual, less cloud, less rain, less unsettled weather.

European Troops in India.

YEAR.	Strength.	RATIO PER MILLE OF STRENGTH.				
		Admissions into hospital.	Constantly sick.	Deaths.	Invaliding	TOTAL LOSS.
1886—95 . . .	677,877	1,457	83	15·16	24	39
1895	71,031	1,462	94	15·26	23	39
1896	70,484	1,387	94	14·84	28	43

The chief causes of admission were venereal diseases and ague. Among the diseases with increased admission rates were small-pox, influenza, cholera, and hepatitis. On the other hand, the admission rates from ague, dysentery, diarrhœa, and enteric fever were lessened. Venereal diseases caused 37 per cent. of the total sickness, and ague 17 per cent.

The chief causes of death were enteric fever and hepatic abscess. Among the diseases with increased mortality were cholera, small-pox, and circulatory diseases. On the other hand, the mortality from ague, dysentery, diarrhœa, hepatic abscess, and enteric fever was lessened. Enteric fever caused nearly 43 per cent. of the total deaths, and hepatic abscess 8 per cent. (Table I.)

The chief causes of invaliding (Table LIII) were, in order, syphilis and gonorrhœa, debility, tubercle of the lungs, and malarial fevers.

3. Owing to the system in force for the returns of the army, the following tables must be read with the reservation that the months shown are not really calendar months, but variable periods of from 4 to 5 weeks. However, though the month-headings are not exact, they sufficiently indicate whereabouts in the year or period a maximum or minimum falls. The first table deals with the admission rate, the second with the constantly sick rate, and the third with the death rate, and all are quite or nearly self explanatory. A few remarks may, however, be useful. The first shows that the whole year ratios of 1895 and 1896 were lower than the

ratio of the quindecennium ; and that the ratios of all the months of 1896 after March were lower than their corresponding quindecennial ratios :—

PERIOD.	ADMISSION RATIO PER 1,000 PER ANNUM.												FOR THE PERIOD.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
1880—94 . . .	1270'8	1204'6	1272'4	1439'1	1476'6	1479'2	1529'7	1607'2	1744'9	1758'5	1643'9	1365'1	1484'2
1895* . . .	1368'3	1287'3	1375'5	1467'4	1559'5	1547'0	1597'9	1503'2	1476'9	1535'4	1450'8	1363'5	1460'0
1896 . . .	1344'0	1294'5	1381'8	1373'1	1360'0	1413'3	1515'8	1452'7	1439'2	1443'6	1401'4	1215'8	1386'7

* Excluding Field Forces.

It also shows that while the maximum monthly ratio for the fifteen-year period was that of October, both 1895 and 1896 had their maximum in July. The next shows that the whole-year constantly sick ratios of 1895 and 1896 were considerably higher than the ratio for the quindecennium, and that every month of 1896 had a higher ratio than the corresponding quindecennial month. The increase of the constantly sick rate of recent years was attributed on page 16 of the report for 1895 to the increase of enteric fever and venereal affections, diseases which Table IV shows to occur in large numbers, and to necessitate a long stay in hospital. To these may be added influenza, especially in some of the years from 1890 onwards.

PERIOD.	CONSTANTLY SICK RATE PER 1,000.												FOR THE PERIOD.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
1880—94	76'3	75'3	69'6	69'4	74'4	76'0	78'3	81'1	84'2	80'8	78'7	74'8	76'6
1895*	97'5	91'5	87'0	90'2	93'9	95'7	97'1	97'2	94'2	92'5	93'3	93'6	93'6
1896	98'8	94'9	93'6	90'8	91'7	92'2	95'7	97'7	98'1	92'7	92'8	87'2	93'8

* Excluding Field Forces.

In addition, the above shows that while the maximum month in the fifteen-year period was September, the maximum of both 1895 and 1896 was in January. In 1896 this was due to the prevalence of influenza and pneumonia in the end of 1895 and beginning of 1896 ; and in 1895 there seems to have been an unusual amount of malarial and enteric fevers at the beginning of the year. The third table shows that the whole-year ratios of 1895 and 1896 were below the ratio of the quindecennium, and that after July all the monthly ratios of 1896 were below the corresponding quindecennial ratios :—

PERIOD.	DEATH RATIO PER 1,000 PER ANNUM.												FOR THE PERIOD.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
1880—94	11'52	9'49	9'51	13'68	16'88	19'36	17'73	21'14	21'64	16'85	14'29	12'88	15'46
1895*	9'06	8'18	6'36	14'59	21'40	19'95	14'67	18'51	15'44	13'10	11'48	13'66	13'79
1896	14'81	8'45	15'48	20'37	18'60	14'96	19'86	17'77	14'05	11'93	10'24	10'98	14'84

* Excluding Field Forces.

It shows, too, that 1895 and 1896 had their maximum month of mortality earlier in the year than that of the fifteen-year period.

4. In Table I the ratios of the four commands are placed side by side for comparison. Bengal had the highest mortality from cholera, enteric fever, ague, tubercle of the lungs, dysentery, and hepatic abscess; the Punjab the highest from remittent fever, heatstroke, and pneumonia, and the lowest from cholera, small-pox, tubercle of the lungs, and dysentery; Madras the lowest from enteric fever, heatstroke, and pneumonia; and Bombay the highest from small-pox and respiratory diseases other than pneumonia. The percentage of enteric fever in total deaths was greatest in the Punjab, and the percentage of hepatic abscess in Bengal. The total death rate of Bengal, which was the highest, was not far from being double that of Madras, which was the lowest. Only the Punjab command was more healthy than in the previous year.

5. The following table gives vital statistics of the European troops in Burma as a whole; whereas Table II contrasts Burma Coast with Burma Inland:—

PERIOD.	Strength.	RATIO PER 1,000 OF STRENGTH.				
		Admissions into Hospital.	Constantly sick.	DEATHS FROM		
				Cholera.	Other causes.	TOTAL.
1890 . . .	4,712	1,743	102	...	20'80	20'80
1891 . . .	4,623	1,589	92	2'38	17'74	20'12
1892 . . .	4,316	1,491	91	...	14'83	14'83
1893 . . .	3,928	1,461	96	25	12'73	12'98
1894 . . .	3,940	1,465	93	25	9'39	9'64
1895 . . .	4,045	1,410	96	99	8'41	9'39
1896 . . .	4,174	1,514	109	48	6'71	7'19

Burma in 1896 was distinguished by the prevalence of influenza, simple continued fever, and hepatitis.

6. In Section IV, paragraph 78, a full account is given of the new map prefixed to this report, and of the rectification of the boundaries of the geographical groups.

The following table shows that, judging by the constantly sick rate, Burma Inland and Gangetic Plain were the most unhealthy for the decennium, and the Hills and the Deccan the most healthy. It also shows that the 1896 constantly sick rate of every group, except Bengal-Orissa, Western Coast, and Southern India, was higher than its corresponding decennial ratio, and that the rise was greatest in the cases of Central India, Burma Coast, and the Hills. As

compared with the decennial ratios, there was increase of cholera mortality in six groups, and of enteric fever mortality in eight :—

		RATIO PER 1,000 OF STRENGTH.											
		I	II	IV	V	VI	VII	VIII	IX	X	XI	XIIa	XIIb
		Burma Coast and Bay Islands.	Burma Inland.	Bengal and Orissa.	Gangetic Plain and Chutia Nagpur.	Upper Sub-Himalayan.	North-Western Frontier, Indus Valley, and North-Western Rajputana.	South-Eastern Rajputana, Central India, and Gujarat.	Deccan.	Western Coast.	Southern India.	Hill Stations.	Hill Convalescent Depôts and Sanitaria.
1886—95	Constantly sick	89·0	99·4	92·9	96·0	88·9	83·9	88·0	79·1	81·7	82·2	70·9	88·0
	Death—Cholera	·21	1·71	·78	4·31	1·14	1·13	1·65	·74	...	·30	·61	·78
	Death—Enteric fever	3·02	2·47	3·13	5·98	7·03	5·30	7·00	4·69	2·14	2·79	5·56	4·98
1895	Constantly sick	86·4	102·4	96·9	105·4	94·6	89·2	101·5	97·2	83·3	71·5	92·0	96·1
	Death—Cholera	...	1·51	·88	2·12	·14	...	·58	·52	...	...	...	...
	Death—Enteric fever	4·04	1·51	6·16	7·36	6·74	8·52	6·94	5·15	2·56	1·32	5·25	4·73
1896	Constantly sick	115·7	110·9	79·6	100·7	92·3	95·1	120·1	89·7	78·2	78·4	89·6	88·5
	Death—Cholera	·76	·37	1·22	1·07	·21	...	2·64	1·58	·64	1·12	...	...
	Death—Enteric fever	1·53	·37	4·07	11·61	5·21	5·79	8·39	6·01	10·28	5·34	8·20	3·62

In Table II the vital statistics of the groups for 1896 will be found placed side by side to facilitate comparison. Central India had the highest constantly sick and admission rates ; Gangetic Plain the highest death rate ; Western Coast the lowest constantly sick and admission rates ; and Southern India the lowest death rate. Burma Coast had the highest admission rates from influenza, hepatitis, and the lowest from remittent fever ; Burma Inland the highest from simple continued fever, and the lowest from enteric fever ; Bengal-Orissa the highest from remittent fever, dysentery, and hepatic abscess ; Upper Sub-Himalayan the highest from pneumonia ; Indus Valley the highest from ague ; Central India the highest from cholera, respiratory diseases other than pneumonia, and venereal diseases ; the Deccan the highest from tubercle of the lungs ; Western Coast the lowest from ague, tubercle of the lungs, dysentery, hepatic abscess, hepatitis and venereal diseases ; Southern India the highest from small-pox, and the lowest from diarrhœa ; the Hills the highest from enteric fever, rheumatic fever, and diarrhœa.

The percentage of enteric fever to total admissions in 1896 was greatest in the Hills ; of ague in the Indus Valley ; of remittent fever, dysentery, and hepatic abscess in Bengal-Orissa ; of simple continued fever in Burma Inland ; of pneumonia in Upper Sub-Himalayan ; of other respiratory diseases in Burma Coast and Upper Sub-Himalayan ; and of venereal diseases in the Deccan.

7. The death ratios of all stations will be found in Table III, and the actuals in Table IV. The highest ratios among the large garrisons with a strength of over 1,000 were those of Allahabad, Fyzabad, Lucknow, and Agra. Those of the last two were lower than in the preceding year ; that of Fyzabad only slightly higher, while that of Allahabad was more nearly four than three times higher. The cause of the great rise at Allahabad was an increase of enteric fever. In Table V will be found some explanation regarding the unhealthiness of these and other stations.

8. The statistics of individual regiments and of the different arms of the service may be studied in Table XIV. The infantry had the highest admission and constantly sick rates, as in the previous year; the artillery the highest invaliding rate, as in 1895, and the highest death rate. The 1st battalion, Royal Welsh Fusiliers, at Jhansi had the highest constantly sick ratio among infantry regiments, and the 1st Norfolk at Allahabad the highest death rate. The latter regiment suffered severely from enteric fever, to the extent of 93 admissions and 32 deaths.

9. Sickiness and mortality having been studied in their relation to India, to commands, to geographical groups, to stations, and to regiments, it will be convenient now to discuss the statistics of some of the chief diseases.

10. Influenza, which had been rising in the end of 1895, reached a maximum in January 1896, and after two temporary rises, one in March and the other in September-October, fell again in the last two months of the year (Table VI). The following shows the increase in 1896 over 1895. It also shows the fluctuations of the disease since 1890, the first epidemic year:—

PERIOD.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	Per mille of strength.
1890 . . . . .	..	3	473	1,451	248	69	13	2	3	..	..	1	2,263	33.4
1891	1	..	1	16	77	91	112	29	20	2	2	21	372	5.5
1892	113	53	354	241	57	4	32	8	..	..	..	..	862	12.7
1893	1	..	..	15	4	..	..	..	..	..	..	1	21	.3
1894	7	9	12	70	101	30	7	7	..	2	..	..	245	3.4
1895	14	7	52	156	66	35	17	1	5	13	23	165	554	7.8
1896	262	65	140	30	12	7	3	3	88	128	50	20	808	11.5
TOTAL	398	137	1,032	1,979	565	236	184	50	116	145	75	208	5,125	

The actual maximum of the individual years of the seven occurred in various different months, but over the seven-year period as a whole the greatest number of cases occurred in April and March, and the smallest number in August and November; 85 per cent. of the whole in the first six months of the year, and only 15 per cent. in the last six months. Geographical Groups I, II, V, VI, VII, VIII, IX, XI, XIIa, and XIIb, were attacked both in 1895 and 1896; while Groups IV and X were spared in both years, as well as in 1894. Twenty-five stations were attacked in 1896 against twenty-three, nine of them suffering only in 1896, sixteen in both years, while some escaped that had been affected in 1895. In Table VI it may be seen that Lucknow, Rangoon, Bareilly and Secunderabad, among stations, had the greatest numbers of cases. There were two distinct outbreaks at Rangoon; while at Bareilly the disease was confined to the first three months, and at Lucknow to the last four months of the year. Rangoon had a large number of cases in the preceding year also. As may be seen in Table IV, the average number of men constantly sick with influenza was 61, against 16 in 1895, and the average duration of a case 28 days against 10. The returns deal, of course, only with those cases which were admitted into hospital, but there were mild cases not admitted. Particulars regarding the deaths from influenza will be found in Tables III and IV. In Section III, paragraph 48, is given a table showing the relation year by year of influenza to pneumonia, and of the influenza of the European troops to that of the native troops and to that of the prisoners.

11. General questions regarding the etiology, spread, and prevention of cholera, and the circumstances attending the most important outbreaks of 1896, will be discussed in

Cholera.

Sections VI and X of this report.

The amount of cholera was greater than in the previous year, but the ratios were lower than those of the decennium, as may be seen in the following table :—

PERIOD.	ADMISSIONS.		DEATHS.	
	Number.	Per mille of strength.	Number.	Per mille of strength.
1886—95	1,280	1.9	901	1.33
1895	44	.6	32	.45
1896	70	1.0	63	.89

The distribution of the cholera of 1896 by stations and seasons is shown in Table VII. The disease was at its maximum in March ; there was none of it before March or after August ; and Poona with 13 cases, Benares and Jhansi suffered most. The comparative, seasonal, and geographical incidence of cholera upon European troops in the ten-year period 1886—95 is treated of in Section III, paragraph 49.

12. Information regarding small-pox in 1896 will be found in Tables I—IV and LIII, and information about vaccination in

Small-pox.

Section VII, Appendix A, Statement VII. The admission rate was nearly six times, and the death-rate nearly five times, as great as in 1895. There were 122 cases with 10 deaths against 19 cases with 2 deaths. The death-rate was also more than one and a half times the decennial ratio of 1882—91. The greatest numbers of cases at individual stations were (Table IV) 17 at Bangalore, 16 at Allahabad, 9 each at Rawalpindi and Umballa, 7 at Meean Meer, and 6 at Meerut. This list of stations itself shows that the disease was widespread ; but it may be stated in addition that each of the four Commands had much increased admission ratios. In Burma Coast, Bengal-Orissa, and Western Coast small-pox was absent, as in the preceding year ; and in the Deccan there was less ; but in all the other groups there was an increase, mostly large. In Section III, paragraph 50, will be found some information regarding small-pox in the ten-year period 1886—95.

Some medical officers have noticed the state of vaccination of their small-pox patients, and the most interesting points brought out, and set forth here, as in Section III, paragraph 50, will be all the more interesting when read in connexion with the following extract from a recent article ⁽¹⁾ on the disease :—

Small-pox after re-vaccination.—Such cases occur, but in the majority of cases it will be found that the re-vaccination had been unsuccessful. Some persons who have been successfully re-vaccinated do, however, contract small-pox. Of six cases observed by me the time intervening between the re-vaccination and the attack of small-pox varied from 1 to 25 years, the average being 10 years. The attack is usually mild and modified ; but I have seen a case of pure hæmorrhagic small-pox in a woman who stated that she had been successfully vaccinated four years previously, and on her arms were scars alleged to be due to, and indistinguishable from those resulting from, vaccination. I have not, however, seen fatal small-pox in any one whose primary vaccination was efficient, and who also had been successfully re-vaccinated.

UNSUCCESSFUL RE-VACCINATION DOES NOT NECESSARILY MEAN IMMUNITY.

Allahabad.—16 men and 5 women and children were attacked. One infant had been done twice, but unsuccessfully. All made excellent recoveries.

Bareilly.—Gunner W. had one distinct mark on the right arm. He had been in 1891 and in 1894 unsuccessfully re-vaccinated. He died of confluent small-pox.

Meerut.—There were six cases, all mild. In four re-vaccination had failed.

Ferozepore.—Three men, one officer, six women and one child were attacked. All the men had been re-vaccinated. All the others had good vaccination marks, except the infant, which had been vaccinated three times, but without success. All recovered.

Mooltan.—There was one discrete case, and one confluent; both had been vaccinated in infancy, and bore perfect marks, and had been re-vaccinated at least once, but without result. Both recovered.

PROTECTED CHILD OF AFFECTED MOTHER ESCAPED.

Bareilly.—Two men and one woman were attacked. The woman had been vaccinated in infancy, and bore a distinct mark on her left arm. Her infant was vaccinated. It did not contract the disease.

GREAT SUSCEPTIBILITY.

Bareilly.—Bombardier C. died of hæmorrhagic small-pox. He had been vaccinated in infancy, and successfully re-vaccinated in May 1890, and bore satisfactory marks of both operations.

Agra.—Five men attacked, of whom one died of hæmorrhagic small-pox. He had been vaccinated in infancy, unsuccessfully re-vaccinated in October 1888, and successfully re-vaccinated some time in 1892. He had satisfactory marks, one on the left arm and two on the right.

Bangalore.—Seventeen cases among the men. One man who died of malignant hæmorrhagic small-pox had good vaccination, and re-vaccination perfect. A man with confluent small-pox, who recovered, had good vaccination and modified re-vaccination.

Landour.—One case, confluent, recovered. He had been vaccinated in infancy, and re-vaccinated in October 1891 in three places. The former, judging by the scars, was perfect, the latter modified. He bears satisfactory marks of vaccination.

Nasirabad.—Four cases: all recovered. Each bore good marks of vaccination in infancy, and all had been re-vaccinated on enlistment.

IMPORTANCE OF RE-VACCINATION.

Meerut.—One officer who had good vaccination of infancy, but had not been re-vaccinated, got small-pox of a malignant type, and died of abscess of the liver. Two women were attacked. The one who recovered had no marks of vaccination in infancy, but three perfect marks of 1888. The other aborted and died. She had one good mark of infantile vaccination.

Umballa.—Nine men were attacked and two died. Six bore marks of satisfactory vaccination, of whom 4 had a modified form of the disease, one the ordinary form, and one, who died, the confluent form. Three bore doubtful marks of vaccination, of whom one had the disease modified, one confluent, and one, who died, hæmorrhagic.

Kasauli.—One child of 18 months, that bore feeble marks of vaccination, died of severe confluent small-pox.

Mooltan.—One woman, who died of hæmorrhagic small-pox, had no marks of re-vaccination, but three good infancy marks on the left arm.

Dalhousie.—One woman had the disease mildly. She had three good vaccination marks, but they appeared to be infancy marks, and it is very doubtful whether she was ever re-vaccinated.

Mhow.—Three men were attacked, of whom one died of confluent small-pox. He had been vaccinated in infancy, bearing good marks, but there is no record of his ever having been re-vaccinated since entering the service.

Deesa.—Two cases, one virulent, hæmorrhagic and fatal. He bore three large vaccination marks of infancy, two on the left arm, and one on the right.

MISCELLANEOUS.

One case in an officer was complicated with abscess of the liver. One child died, during tracheotomy necessitated by the disease. One child died of small-pox on the fourth day after birth, the mother having been attacked after childbirth. One infant at the breast contracted small-pox from or along with its mother. It recovered, but it is not stated whether vaccination had been performed or not.

13. Ague gave rise to about 17 per cent., an unusually low proportion, of the admissions from all causes. On page 8 of Section I it is shown that the year 1896 was a very dry one; and naturally it was also comparatively non-malarious :—

PERIOD.	INTERMITTENT FEVER.		REMITTENT FEVER.		SIMPLE CONTINUED FEVER.	
	Admissions per 1,000.	Deaths per 1,000.	Admissions per 1,000.	Deaths per 1,000.	Admissions per 1,000.	Deaths per 1,000.
1886—95 . . .	353	·18	9	·54	57	·04
1895 . . .	336	·25	13	·30	22	·04
1896 . . .	239	·10	14	·40	30	...

The preceding year had also been dry and non-malarious, but not to such a degree as 1896. A reference to Tables II and X shows that in 1896 ague ratios were high in Indus Valley, Central India and Upper Sub-Himalayan, and low in Western Coast and Southern India. And that that is a usual state of things may be seen from the following :—

PERIOD.	RATIO PER 1,000 OF STRENGTH.											
	I	II	IV	V	VI	VII	VIII	IX	X	XI	XIIa	XIIb
	Burma Coast and Bay Islands.	Burma Inland.	Bengal and Orissa.	Gangetic Plain and Chutia Nagpur.	Upper Sub-Himalayan.	North-Western Frontier, Indus Valley, and North-Western Rajputana.	South-Eastern Rajputana, Central India, and Gujarat.	Deccan.	Western Coast.	Southern India.	Hill Stations.	Hill Convalescent Depôts and Sanitaria.
1886-95	194·5	531·2	381·8	216·9	465·5	632·4	496·9	228·0	164·3	119·0	291·0	320·4
1895	176·9	140·8	339·5	166·5	415·6	952·9	337·9	249·7	72·3	101·3	268·9	421·7
1896	105·3	157·1	204·9	183·4	248·7	523·5	376·1	265·1	75·8	80·3	163·9	178·8

Since Upper Burma has become settled and the soldiers less exposed, there has been a great reduction in malarial fever in the Burma Inland group. In Table X it may be seen that the most malarious month of 1896 was September, and the least malarious February. At Fort Lahore the water was regularly boiled, attention was paid to clothing, and 5-grain doses of quinine were given daily during October and November.

Though there was no field service in 1896, there was again an increase in remittent fever, as shown above. The principal increase was in Burma Coast, Upper Sub-Himalayan, Indus Valley, and Southern India. The incidence of the disease on stations may be studied in Tables III and IV. None of the medical officers seem to have regarded the disease as of sufficient importance to call for remarks, but at Rangoon and Amritsar it was stated to have been mild in type. All the fatal cases were ascribed to malaria, and the *post-mortem* appearances recorded were compatible with that diagnosis, though in one case there was a small superficial abscess of the liver, and in another there might be some suspicion of septicæmia. Remittent fever was most prevalent in June and in the period June—October.

The rise in simple continued fever was perhaps what might have been expected in a dry hot year; and Table IX shows that the maximum was in June. Medical officers sometimes note that cases returned as simple continued fever may have been mild cases of enteric fever; and they differ in practice as to where they draw the line between simple continued fever and enteric fever, as well as between simple continued fever and ague. A recent writer ⁽²⁾ has stated his belief that ardent fever may develop into enteric fever, or at least into *an* enteric fever.

On page 26 of the report for 1892 a hint was dropped as to the possible occurrence of Malta fever in India. Since then the actuality thereof has been positively asserted ⁽³⁾ as regards certain stations, more especially Subathu, on the ground that the blood-serum of some soldiers invalided from those stations was found at Netley to react specifically with the *micrococcus Melitensis*. The subject deserves further investigation, preferably in India itself. By the use of the method of serum diagnosis it is said to have been shown that the *micrococcus Melitensis* is the true cause of Malta fever; that Malta fever occurs in India; that certain cases which had been diagnosed as enteric fever were really cases of Malta fever; that certain cases which had been diagnosed as enteric fever were cases neither of enteric fever nor of Malta fever, but either malarial or of some as yet undifferentiated class; and that the agglutinating and sedimenting power of patients' serum persists for years. If the very promising method of serum diagnosis fulfils all that is hoped and expected of it, a certain measure of the light of certainty will be thrown upon the differentiation of Indian fevers.

14. In the matter of enteric fever the differentiation ⁽⁴⁾ of the bacillus and the treatment ⁽⁵⁾ of the disease by enteric serum, the diagnosis of the fever by the patient's serum-reaction ⁽⁶⁾ to a true cultivation of the specific bacillus, preventive inoculation or vaccination ⁽⁷⁾, and the question as to how wide may be the dissemination of the enteric bacillus in nature ⁽⁸⁾, continue to be the chief topics of interest.

Just as when tubercle bacilli gaining access to a blood vessel are carried to all the parts supplied with blood, and produce general tuberculosis, so was the enteric bacillus distributed by the water pipes at Maidstone. A different mode of water-conveyance, its effectiveness doubtless aided by other factors, such as exposure, fatigue, low spirits, fear, etc., is described by a writer in the Indian Medical Gazette ⁽⁹⁾, who says that after the earthquake of the 12th June there was a smart outbreak of enteric fever among the younger residents of the station of Shillong, the cases occurring simultaneously. The earthquake had damaged the water works, and people were obliged to have recourse to water from impure sources. "This," he says, "is one more instance of the dependence of enteric fever on the drinking of impure water, and it further opens up the question as to the widespread distribution of the typhoid bacillus."

The modern view regarding the value of the chemical and bacteriological examination of water as a guide may be summed up as follows ⁽¹⁰⁾, more or less in the phraseology of the late Sir George Buchanan. "They can tell us of impurity and risk, but cannot guarantee purity and safety. Besides utilising the aid of the chemist and the bacteriologist, we must learn the geological source and history of the water, and must go in search of the conditions surrounding and affecting the source and storage."

Hankin, who stated that the water of some Indian rivers possessed a bactericidal power against the cholera microbe, finds⁽¹¹⁾ that the enteric bacillus is not affected by the same water.

Abba⁽¹²⁾, working under certain experimental conditions with Pasteur-Chamberland filter-candles, found that one or two kinds of the water bacteria could grow through the candle in about ten days, while the cholera commas, the enteric bacillus, and the *bacillus coli*, could not get through. The bacteria which can pass the filter are, he says, such as find in the water an environment favourable to growth as well as to life.

In connexion with the question of water a paper⁽¹³⁾ on the liability of total abstainers to enteric fever may be here referred to; and the danger of the spread of infected water through the medium of milk is illustrated by another⁽¹⁴⁾.

The possibility of air and dust-borne enteric fever is held by some; but
 Air, Dust, Hardiness. Germano⁽¹⁵⁾ has shown by a series of experiments that the enteric bacillus cannot survive thorough drying, or such a degree of drying as would allow it to be carried away by currents of air. But, as he proves, it can not only exist for a long time in moist media, but can also survive under certain circumstances in an apparently dry condition, provided it adheres to articles, or is surrounded by materials, which preserve a certain amount of moisture in themselves, such as linen, articles of clothing, wood, heaps of earth, dust and fæces-containing dirt. Even in such circumstances most of the bacilli die, but a few survive. These cannot become a danger by getting into the air, because that would require so fine a crumbling that complete dryness, and therefore death of the bacilli, would result. But the danger is that they may get on to the fingers, on to food, on to dishes, and so into the mouths of susceptible men. Just this property of the enteric bacilli to survive a long time in a half dried condition, concludes Germano, must be considered as one of the chief sources of enteric infection. Sinnhuher⁽¹⁶⁾ also found that in pulverised garden earth kept in a moist state cholera and enteric bacilli retained their vitality for several months, perhaps for indefinite periods.

In India, as elsewhere, enteric fever has sometimes been supposed to be
 Bread. conveyed in bread. Arloing⁽¹⁷⁾, however, points out that while the enteric bacillus dies at 60°C, the temperature of an oven reaches 200°C, and the central part of the bread during baking 110°C. He placed rich cultures of the enteric bacillus in pipettes in the middle of loaves, and then baked the loaves for from 15 minutes to one hour. All were rendered sterile; and he concludes that "one can therefore lay down that, even if bread be prepared with water containing Eberth's bacillus, the baked bread will be harmless."

Dwouieglazoff⁽¹⁸⁾ in 37 examinations of 15 patients' mouths found the
 Mouth. enteric bacillus twice, but not at all in 10 similar examinations of the attendants.

Laveran⁽¹⁹⁾ mentions that in the case of an outbreak in a military dépôt
 Raw Vegetables. in France the enteric bacillus and fragments of tape-worm were found on the leaves used for salad by the non-commissioned officers, who alone were affected, and he specially warns against strawberries as likely carriers of infection. This latter may very

likely be one of the modes of conveyance of the disease in the Himalayan hill stations of India.

Ransom ⁽²⁰⁾ in a lecture stated his strong belief in the spread of enteric fever by personal contagion, and he gave several instances occurring in the case of nurses and hospital attendants. He reminded his hearers that the vitality of the bacilli is considerable, and that they may be found not only in the fæces but also in the urine and sputa, and live long outside the body; and that the necessary precautions were prevention of dried excreta reaching the dust of the room or the clothes of the nurse, as well as the careful washing and disinfection of the hands of the latter, and the disinfection of the patient's stools.

Continuing the subject of the spread of enteric fever, the following are some facts regarding Widal's test with mother and foetus. A child was born when the mother was in about the third week of the disease ⁽²¹⁾; it was healthy except for slight transitory jaundice; when the child was about 7 weeks old its blood serum gave a positive reaction, so that "either the agglutinating principle had passed from the mother's into its blood, or, more probably, it had had enteric fever." A woman suffering from enteric fever at about the fifth month of pregnancy gave the reaction ⁽²²⁾; she recovered; the child was born about four months afterwards: when the child, which was breast-fed, was five weeks old, its blood failed to react, while the mother's, tested at the same time, reacted positively. The inoculation of a pregnant guinea-pig lent a weakened reaction to the blood of the foetus ⁽²³⁾. In a nearly full term foetus of a mother affected with enteric fever both the enteric bacillus and the staphylococcus were found in the blood spleen, and liver ⁽²⁴⁾. Enteric bacilli were found in the blood of a foetus aborted on the 29th day of its mother's fever ⁽²⁵⁾. In one case the placental blood gave a positive reaction, while the reaction of the foetal blood was negative ⁽²⁶⁾.

The occurrence of enteric fever has been reported in a little female child of $13\frac{1}{2}$ months nourished at the breast ⁽²⁷⁾.

A belief in the spread of enteric fever by sewer gas ⁽²⁸⁾ still lingers, but there is perhaps more ground for fear as to pollution of the soil, and of the floors, etc., of buildings ⁽²⁹⁾.

As Kanthack says ⁽³⁰⁾, the virulence of many organisms may also be permanently or temporarily increased either by changing the composition of the nutrient medium in or on

which they grow, or by passing the organisms through a series of animals (a process which is called passage), especially if the animals be relatively insusceptible. In some cases, however, continued passage will lead to permanent attenuation, an important observation in so far as it helps to throw light on the natural decline of many epidemics, which may cease by virtue of a gradual attenuation brought about by continuous transmission from man to man. Again, Kollmann ⁽³¹⁾ found in the case of guinea-pigs that by means of five rapidly successive inoculations from animal to animal the virulence of the enteric bacillus could be doubled; and that by two-hourly inoculations the *bacillus coli* had its virulence increased five times. Cultivated on ordinary media these bacilli rapidly began to lose the extra virulence; and to maintain it an occasional passage through animals was found necessary. Even, therefore, if it be confirmed that

the enteric bacillus is wide-spread in nature, efforts against contamination by excreta must not on that account be relaxed; for not only do these excreta contain the bacillus, but its virulence therein may be greater than in outside nature, and its virulence may be liable to still further increase by passage through another human body.

It is not known upon what statistics is based the assertion⁽³²⁾ that natives of India when they emigrate to other countries suffer more severely from enteric fever than in their own country, and that the disease has been observed among native troops sent to Hong Kong, North China, Singapore. The Army Medical Reports for the six years 1890 to 1895 show no deaths from enteric fever among the Asiatic troops of China and the Straits Settlements, and no mention is made of admissions. And the Abstracts given in the same reports indicate that the European troops stationed there suffer in less proportion than those in India. See also the Report of the Sanitary Commissioner with the Government of India for 1895, paragraph 17, pages 36 and 37. The records of the Perak Expedition also make no mention of the disease.

It has been stated⁽³²⁾ that British troops have suffered from enteric fever on virgin soil uncontaminated by man, and the remarks made by the medical officer of Quetta and quoted in paragraph 15 may, in this connexion, also be referred to; but before accepting as an explanation of this the at present not completely proved saprophytic presence of the enteric bacillus in nature, the somewhat difficult task of proving the impossibility of previous human contamination would have to be undertaken.

Several fresh cases of enteric fever without intestinal lesions have been placed on record⁽³³⁾, and that the disease was really enteric fever was proved in some of them by the discovery of the bacillus in the spleen or bile. Very little work seems to have been done in India in the way of cultivation of the genuine bacillus from the spleen, though this is important both for the diagnosis of the individual case and for the preservation of a standard for laboratory use.

With regard to the occurrence of the bacillus in the urine some additional information has been published⁽³⁴⁾. Blumer in the examination of 10 cases of pyuria found the *bacillus coli* in 7, once along with the enteric bacillus; and the enteric bacillus twice, once with the colon bacillus; and he remarks that many of the results of the older investigators were wrong, because they mistook the *bacillus coli* for the enteric bacillus. Horton Smith made 61 observations on 7 cases. In 3 cases the urine contained enteric bacilli at some period of the disease, sometimes in enormous quantities. They first appeared in the third week or later. In one case they persisted in the urine for 22 days after the temperature had come down for good. He concludes, firstly, that the examination of the urine is not of much use for diagnostic purposes, because of the late appearance of the bacillus in that excretion, and, secondly, that the urine may sometimes be a serious source of infection.

Kühnau⁽³⁵⁾ reports that from the blood taken in a droplet from the finger tip, he did not once succeed in isolating the bacillus; but in blood taken direct from a vein, and used in quantities of 5-10 cc., he found it in 11 out of 41 cases. Sanarelli, as was

mentioned in a former report, considers enteric fever to be primarily a blood disease, and he has lately⁽³⁶⁾ likened it to yellow fever, insomuch as both are blood diseases, and both result in a hæmatogenous enteritis.

In this present and in former reports reference has been made to cases in which enteric fever and dysentery appeared to co-exist or to be mistaken one for another*. On this point the Davidsons⁽³⁷⁾ say:—

Dysentery.

Enteric fever and dysentery may declare themselves simultaneously in the same patient, and this double infection has been observed occasionally to occur in an epidemic form As the disease advances the dysenteric symptoms yield, sometimes suddenly, to those of typhoid fever.

The preventive measures usually proposed may be divided into such as are to kill or weaken the bacillus and such as are to strengthen the human being against it. The general aim of all measures of the first class may be shortly stated as cleanliness. But it may be doubted whether “universal public and private cleanliness”⁽³⁸⁾ is attainable, and whether, if it were attained, enteric fever would be found to have been eradicated.

Prevention.

There is no doubt that for the disposal of excreta cremation is the most thorough and the surest plan, and it is practically convenient to mix the excreta with sawdust before incineration. But a very promising method is that recently described by Sinnhuher,⁽¹⁶⁾ who found that:—

Cremation.

In pulverised garden soil, kept in a moderately moist state cholera and enteric bacilli retained their vitality for several months, perhaps for indefinite periods; but that they were speedily destroyed by the addition of small proportions of quicklime thoroughly incorporated with the earth. With 4 per. cent they perished in 4 hours, with 6 per cent in less than an hour, and with 8 per cent. within 15 minutes. If kept fairly dry, the mixture lost its activity very slowly, not, in fact, until the lapse of many weeks or months, while it was fully as efficient a deodoriser as the pure earth. He therefore recommends as the best material for dry-earth closets a mixture of 10 per cent. of quicklime with dry garden mould, stored under cover from the rain and well worked together, as calculated to act as a disinfectant or germicide, as well as to render excreta inoffensive to the smell without any deterioration of their value as a manure.

Quick Lime.

It is mentioned in paragraph 15 that great use has been made in India during 1896 of boiling, and of the addition of potassium permanganate alum, &c., for the purification of drinking water. Alum is said, however, to be powerless against the enteric bacillus⁽³⁹⁾.

Water sterilisation.

The provision of better sources of supply and the use of the Pasteur-Chamberland filter are said to have greatly reduced the morbidity and mortality from enteric fever in the French army⁽⁴⁰⁾: in 1886 the number of deaths was 964, in 1887 the reforms just mentioned were introduced, and the number of deaths has gradually sunk to 441 in 1896. French writers⁽⁶⁴⁾ also point out the necessity for constant attention to the cleanliness of the floors and the wood-work of buildings, especially of those in which cases of enteric fever have occurred.

French army.

* See section IV, paragraph 87.

15. Many medical officers lay stress on the influence of youth and recent arrival, and some call attention to the increase of enteric fever in a station following the arrival of fresh drafts from England. Some nine or ten men were supposed to have contracted the disease on board ship, at Bombay, or on the way from Bombay to the up-country station. Again, medical officers frequently noted, especially in the case of hill stations, that the disease must have been contracted before arrival, either from impurities encountered on the march, or from a cause existing in the previous station; so that the station where the disease was treated was not always the station in which it was contracted. Some patients acknowledged having used foul or doubtful water in the jungle, on the rifle range, or when marching from the plains to the hills. A complaint was recorded of the dirtiness of camps on the march from the plains to the hills, and of the distance of the good water from a camp, and the nearness of bad water to it. At Bareilly and Nowshera it was noticed that men at the rifle range, or on signalling or field training, that is, men employed outside of barracks, were peculiarly liable to attack, whether from fatigue and exposure, or from being more likely to have recourse to the drinking of dirty water. The water supply was considered liable to contamination at Kasauli, Dagshai, Meean Meer, Ahmednagar, Meiktila, Shwebo, and Bernardmyo. The danger of a double water-supply, one for drinking and one for other purposes is noted in the reports from Calcutta, Ranikhet, Madras, Bangalore, Wellington, Rangoon, Port Blair, Thayetmyo, Nasirabad, and Taragarh. In some cases there remained the danger of the supply by lazy servants of water from forbidden sources. There was a general feeling among medical officers that mussacks were dangerous, and their use was avoided as much as possible, or they were more or less systematically disinfected. But in two cases it was found that drinking water, after being boiled and cooled, was being distributed in, apparently non-disinfected, mussacks. In some cases it appears that dislike of boiled water or of water treated with permanganate of potash was the cause of men resorting to forbidden sources. At Hyderabad the intake of the water supply from the river was considered to be dangerously placed. The use of dip wells, the fouling of well-ropes by bullock droppings, the non-cleansing of water-pipes that had been lying about before they were laid, were alluded to as sources of danger. At Cannanore and Mallapuram some of the cases were attributed to the drinking of bad water while on field service against the Moplahs. The combined result of five stations was that 46 cases occurred among total abstainers, and 129 in non-abstainers, or 26 and 74 per cent. respectively. But, as their average annual strengths cannot be obtained, no conclusion can be drawn as to the relative liability of those two classes. As usual, some medical officers point out the comparative immunity of women and children, and use it as an argument against the probability of the disease having been carried by the water or milk supplies. In a circular memorandum, dated Simla, the 12th May 1896, orders were issued by the Principal Medical Officer, Her Majesty's Forces in India, for the abolition of the Macnamara filters, and authorising the necessary expenditure for the use, according to circumstances, of alum, permanganate of potash, or boiling. The extracts given below will show how these instructions have been carried out, and with what results. In many cases, also noticed more fully below, the specific microbe was reported to have been discovered in the water or other article. When three officers of a mess at Meerut were attacked,

no enteric microbe was found in their drinking water, but investigation showed that their milk was being supplied from the bazar. The medical officer at Dalhousie urges that, with all the modern minute attention to sanitary detail, there has not been any great practical result in the diminution of enteric fever in India ; and, like many other medical officers, he considers the reason of this to be that the men contract enteric fever out of barracks, in the bazars. In support of the contention that enteric fever is mostly contracted in the bazars and especially in the brothels, the medical officers at Fort Allahabad, Meerut, and Nasirabad point out that it was the bachelors who were attacked, and that the married families escaped. In some cases it was noted that men admitted with venereal disease were apt to develop enteric fever, and that placing the bazar out of bounds effected a diminution of enteric fever ; but at Nasirabad placing the bazar out of bounds is said to have done no good. The danger in the careless and dirty habits of the native cooks is insisted on by several medical officers, and two of them suggest that the soldiers should be made to cook for themselves, as in England. In some stations measures have been taken to prevent infection-carrying flies having access to food or food-materials. One case was supposed to have been contracted in hospital from the eating of food smuggled in by the sweeper who handled the excreta of the enteric fever patients. At Peshawar some cases were attributed to the eating of dirty water cresses. Bernardmyo is said never yet to have *originated* a case of enteric fever ; * and the comparative immunity of Belgam is explained by the barracks standing on high ground, and by the water supply being above the reach of contamination. In the case of other stations where enteric fever was absent, rare, or less, the only explanations offered are the possession of a good water supply, and the taking of pains to guard and disinfect the water and milk. Incineration of the enteric stools is reported to have been practised at Chakrata, Peshawar (from October), and Murree. Out of the 1795 cases of enteric fever which occurred throughout the army of India in 1896, over 34 (the number in some cases being given only as "several") are noticed as having declared themselves among patients in hospital or among attendants. Out of these over 14 were in hospital for venereal diseases, 13 were in hospital for other diseases, and 7 were attendants on enteric fever cases. A second attack of enteric fever was the lot of a man at Bangalore, and a fatal second attack of a man at Dagshai. In a fatal case at Dum-Dum there was a single abscess of the liver, and in a fatal case at Lucknow there was multiple abscess formation.

The following is an account, shortened from the reports of medical officers, of the outbreaks in the case of which the drinking water was suspected, or was said to contain the enteric bacillus ; of the measures considered to have been effectual in preventing or checking the disease ; and, especially, of the results obtained by boiling the drinking water, or by adding to it potassium permanganate or other chemicals. The instructions issued for the general adoption of such measures have been mentioned above ; and, as far as can be judged from the extracts to be given, they seem to have been carried out with some thoroughness. It is to be hoped, however, that future results will be more striking than those of 1896. Not only are the reports of medical officers somewhat disappointing, but the reduction in the admission rate of India for enteric fever was only 0·8 per 1,000 of strength, 75 cases fewer. And no difference in the carrying out of the prophylaxis, such as earlier beginning or greater care, can be made

* There were 10 admissions in the three years 1889—91.

out from the reports as a reason why the Punjab command should have had a great reduction, the Bombay and Madras commands a great increase, the Bengal command the slightest possible decrease.

COMMANDS.	Year.	ENTERIC FEVER.		
		Admissions.	Ratio per 1,000 of strength.	Difference.
Bengal	1895	674	30.3	— 0.1
	1896	679	30.2	
Punjab	1895	770	39.0	— 13.1
	1896	488	25.9	
Madras	1895	171	12.7	+ 4.1
	1896	227	16.8	
Bombay	1895	255	16.3	+ 9.2
	1896	401	25.5	
India	1895	1870	26.3	— 0.8
	1896	1795	25.5	

Fort William.—The drinking water-supply is from the municipal filtered water system, and is laid on all over the hospital, and is drawn from standpipes on the ground floor only of barracks. There is a second water supply in the Fort from Havildar's Tank on the maidan just outside the Fort, which is pumped through a rough filtering bed into the Fort, and there used for watering roads, flushing drains, etc. Orders against drinking it have been issued ; but, as the supply is constant and easily accessible, and is to be found at the top storey of the barrack rooms, whereas the filtered municipal water supply is inconstant, this Havildar Tank water is undoubtedly drunk at time and, being liable to contamination (the cholera bacillus was found in it this year) is a grave source of danger to the residents in the Fort. The drinking water is kept in the verandahs of the barrack rooms in the galvanised tubs of the old Macnamara filters, the water being constantly renewed, and due attention paid to the cleanliness of the tubs. About the month of May, Condry's fluid was commenced to be added to the water, and three cases only occurred for the rest of the year. But no special precautionary measures were taken in the month of January and February, when there were no cases ; and I am of opinion that, although as a purifier of the water it is unnecessary, yet the adding of the Condry's fluid, as directing more attention to the proper storage of the water, is distinctly of advantage, and should be continued.

Barrackpore.—Drinking water was obtained direct from the taps, and from the 8th June, owing to the recommendation of Mr. Hankin, permanganated in the reservoirs. No enteric microbes having been found, the water was not stored, but the reservoirs were removed to the kitchens, and strong permanganate used for washing all kitchen utensils, plates, dishes etc. No *surahis* were used except in the 13th Battery, E. D., R. A. and Infantry guard-room, but new ones were supplied daily. Samples of water were examined by Mr. Hankin, and the enteric microbe was not found. The water was sent on the 22nd May. On the 8th June a report on samples of water sediment from the station reservoir was received from Surgeon-Colonel D. D. Cunningham, who found no enteric bacilli in it ; and on the same date permanganate water was ordered to be kept in the men's water bottles. On the 3rd October washings of vegetables were sent to Mr. Hankin, who did not detect any enteric microbe. It will be seen on referring to the dates of the procedures thus briefly mentioned that, so far as it is possible to say with these imperfect facts before us, we are justified in assuming that the water supply was not at fault. If we take the case of the 13th Company, Eastern Division, R. A., in which corps alone the permanganate method was experimentally, but (since water bottles were not treated) imperfectly, tried, we have the following result. The water was permanganated from 24th April. One case occurred on the 27th May, and one on the 11th June. During the same period the 41st Field Battery, using ordinary water, contributed one

case on the 18th May and one on the 31st May ; while the Munster Fusiliers, also using ordinary water, gave one case on the 4th June. Thus, a comparison of the cases of corps under those opposite conditions gave results not encouragingly favourable to the permanganate process, and, as already stated, it was abandoned ; but the water bottles were filled during the period (8th June to present date) which gave us 15 out of the total number of cases. It must be confessed, however, that the only one fact which appears to come out prominently in connection with this epidemic is that the water was not at fault ; and since this is so, the case for the permanganate process cannot be said to be weakened.

Darjeeling.—Enteric fever has been, I am glad to say, conspicuous by its absence. The use of permanganate of potash in the drinking water was introduced in July, and prior to this there had been no enteric fever, so that I am not able to offer any remarks as to the power of this drug as a preventive. My experience of the use of this drug is that it as a tendency to produce dyspepsia and constipation, and that a very slight excess renders the water unpalatable.

Allahabad.—The drinking water obtained from the municipal water-works was found on bacteriological examination to be infected to some extent with the enteric microbe, and here, no doubt, was the active cause of possibly many of the cases ; but I am inclined to believe that in the great majority of instances the disease was contracted in the bazars, for the following reasons among others :—that officers, officer's wives and children were immune during the year, though they used exactly the same water ; that the only case among officers was by no means typical, and may very probably have really been a case of Malta fever ; that of all the precautions taken, that of placing the city and bazar out of bounds seemed to prove the most efficacious.

Fort Allahabad.—Looking to the fact that the disease was equally prevalent in different corps, and occurred solely among the bachelors, whilst the married men and women and children all escaped, I am of opinion that the disease must have been contracted outside the Fort, and most probably in the more disreputable parts of the bazars.

Dinapore.—All the wells in cantonments were disinfected with the permanganate of potassium during the month of April, and the cisterns in which the drinking water is kept after being boiled is cleaned out once a week with a solution of permanganate of potassium. The effect of boiling the drinking water has been very remarkable in checking the number of admissions from enteric fever and dysentery.

Benares.—During January, February, and the greater part of March the water used was from the wells in the cantonment. There were during that period no enteric fever cases. On the removal into sanitary camps the water was carefully boiled. Enteric fever from that time became nearly epidemic. On the return of the men the water was obtained from the municipal waterworks, and was also boiled, but without affecting the prevalence of enteric fever in the least. Potassium permanganate was used for a time, but given up, as the men did not care for the water so treated, and because the water was reported as being from a bacteriological point of view pure.

Jubbulpore.—During the prevalence of enteric fever in the early part of the year specimens of water both from standpipes and reservoir submitted to Mr. Hankin for examination were found to contain the enteric bacillus, besides the cholera microbe in an undeveloped stage. Accordingly, in the month of May, we began to boil the water and to treat it with permanganate of potash, with very successful results, the few isolated cases which have since occurred being apparently due to some extraneous source. Cholera was at the time prevalent in the district, and to a limited extent in the city. Some masonry works were at the time going on at the waterworks, and it is possible that the men who were employed may have been the source of infection. The practice of boiling the water is continued with, I think, favourable results, and it would be well to continue the precaution. Dysentery prevailed most in the months in which enteric fever was at its worst.

Saugor.—The two cases being only single cases admitted a long term apart, the use of permanganate of potassium was not deemed necessary for the water supply.

The medical officer, however, states elsewhere that permanganate was used for the well, when two cases of cholera occurred in April.

Pachmarhi.—Potassium permanganate came into use at this station in July 1896 for purifying the drinking water and also the water supplied to the cook-houses, $\frac{1}{2}$ oz

being added weekly to each well, and the galvanised iron tubs and cisterns in the cook-houses being weekly purified with a strong solution of it. Surgeon-Major Milward, late in charge, reports that no conclusion can be drawn from the experience of the last year with reference to the results of the use of potassium permanganate for purifying drinking water. Four cases of enteric fever were treated in the Station Hospital in the early part of the season. The disease in all the cases was contracted at Allahabad. No case originated at Pachmarhi. The purification produced no good effect whatever as regards diminution of the number of admissions from malarial fevers, or from dysentery, which prevailed quite as much as in former years.

Lucknow.—The water supply of cantonments is a pipe service derived from the Lucknow municipal waterworks. On the 25th April Mr. Hankin reported the presence of the enteric microbe in the cistern of the cook-house of a company of the regiment from which company a case of enteric fever had been admitted. There were no other cases at that time from the same company. The presence of the enteric microbe was also reported in the water taken from the melted ice in the hospital ice-box. The whole of the cisterns in use by the troops were cleansed with permanganate of potash, and the systematic pinking of the drinking water in barracks commenced. This has continued up to the present time. In May Mr. Hankin reported the enteric microbe present in the *surahi* used by a soldier of the 16th Lancers who had been admitted into hospital for enteric fever, but failed to find it in other *surahis* which were believed to have been used by men admitted from other corps. The process of pinking the whole of the water in barracks was not in full working order until the month of May, and this was followed by rapid decline in the number of admissions from enteric fever. This decline was at first thought to be directly due to the use of the permanganate, but a reference to the statistics of 1894 and 1895 showed that a very similar diminution in the number of admissions took place in those years during the months of June and July. Early in September Mr. Hankin wrote to me that he had detected the enteric microbe in samples of water sent to him by the engineer of the Lucknow waterworks. This was attributed to a portion of the water from a new reservoir having found its way into the mains. On October 10th Mr. Hankin found the enteric microbe in 4 out of 6 samples of water taken from different standposts in cantonments. No enteric microbe was found in specimens taken from the same sources in December, but it has again this month of January 1897 been reported present in the municipal water supply. Assuming that the enteric microbe was present in the cantonment mains during September and October, and, as the evidence showed, widely diffused, there was no corresponding increase, but rather a marked diminution in the number of cases as compared with the earlier months of the year. Supposing that as far as the troops are concerned the pinking of the water acted as a protection, yet this will not account for the absence of enteric fever in the cantonments generally, where a large European population draws its water supply direct from the standposts. Amongst the officers and their families there were only two cases of enteric fever between January and December in Lucknow, and in both of these the disease was certainly contracted outside the station. From the above data one of two conclusions seems inevitable, either that the microbe found was not the special cause of enteric fever, or that the microbe can be consumed with impunity by all but a very small percentage of people.

Fyzabad.—There was never anything in the nature of an epidemic, but from the middle of April to the end of July there was, on the contrary, only one admission. This was after the permanganate of potash began to be added to the drinking water; but, although it has been added with scrupulous care ever since, cases have been occurring the same as before it was done.

In April-July there were seven cases, not one. See Table VIII.

Sitapur.—At the end of March 1896 the drinking water and the water in the cook-house tanks were treated with permanganate solution once a week, and that custom has been carried out since under the supervision of a medical officer. On the 8th April the fourth case of enteric fever during the year up to date was admitted to hospital. There were no more cases from that date up to the 27th May, when one case was admitted. After that no more cases occurred in the year. This looks well for the permanganate treatment of the water, as we may exclude the case admitted on the 8th April, it having been contracted before the permanganate was taken into use. We have had, then, only one case of enteric fever to deal with since the drinking water was thus treated.

Fatehgarh.—Of the 10 admissions from the garrison 9 occurred between the 7th February and the 2nd April. For a small garrison this was rather a serious outbreak. Prior to this there had not been a case of enteric fever in the garrison since August 1895. On the occurrence of the first case samples of water, milk and butter were sent to the Chemical Examiner, North-Western Provinces and Oudh (22-2-96) for bacteriological examination, and he reported (7-3-96) that he had discovered a bacillus "suspicious of enteric" in the butter. On receipt of this report the sale of butter, which was supplied by the milk contractor to the detachment, was forbidden, and tinned butter from the Bombay dairy was sold in the coffee-shop. In the meanwhile, however, other cases had occurred, mostly from the artillery in the Fort. Several samples of water taken from the Fort were then sent to the Chemical Examiner (24-2-96), who reported (19-3-96) that the water from Jacob's Well contained the enteric microbe. This has always had the reputation of being one of the purest wells in the station, and is used by all the Europeans in the Fort for drinking purposes. With reference to this Mr. Hankin states that replies to a former circular have elicited the fact that the enteric microbe is a frequent inhabitant of the best wells in cantonments, and have raised the suspicion that it is an aristocrat among microbes, preferring the comparative microbic solitude of a barrack filter or cook-house tank to the brisker struggle for existence that goes on in a bazar well. Of the six men admitted up to this time four were artillerymen from the Fort, and had regularly drunk the water from Jacob's Well, and one of the others had been on guard in the Fort, and drunk of the same water a few days before he was attacked. On the receipt of the report of the Chemical Examiner, Jacob's Well was closed thoroughly cleaned out, and disinfected with potassium permanganate. A week afterwards (19-3-96) another specimen of the water was sent for further bacteriological examination, and was reported as clear from enteric microbes. On the 2nd April three more men were admitted, of whom one had been nursing enteric fever cases, and one had been on guard in the Fort few days before the closing of Jacob's Well and drunk of its water. On the 23rd April the Chemical Examiner reported that the water from the well used for drinking purposes in the British Infantry barracks contained the enteric microbe. The well was at once cleaned out, and disinfected with potassium permanganate. Since the 20th May all the water kept in the tanks used for drinking purposes in the British Infantry barracks has had a sufficient amount of potassium permanganate added to it to make it of a faint pink colour. Since this there has been only one case of enteric fever in the garrison, a man who is supposed to have contracted the disease by drinking village water when out route marching a few days before he was attacked. Macnamara filters were discontinued in barracks on the 20th March.

No case occurred after the 2nd April until the 13th July.

Cawnpore.—Permanganate of potash was added to all drinking water from the beginning of May to the middle of August, and afterwards put into the wells used for drinking purposes. This change was necessary as I found the men up to every dodge to avoid drinking "pink water". They said they did not like drinking "lotions" and "stuff used for injections", and would fill their *surahis* on the sly from the nearest well. They also said it caused diarrhoea and dysentery. As regards the number of admissions from enteric fever, the period from May to December only shows a decline of three cases as compared with the previous year. Ague also shows a slight decline, but the number of cases of dysentery largely increased. The rainfall was small and the district was free from cholera. The trial for one season has not been sufficiently extensive to give a positive opinion one way or the other. But I am perfectly certain that the idea is excellent, and deserves a further trial.

Bareilly.—In consequence of the prevalence of enteric fever during the first half of the year it was decided to pink the water used in cooking and drinking. In the infantry lines the cooking and drinking water was pinked towards the end of May, and No. 3 well daily from the beginning of August. In the artillery lines the pinking was not in full force till July. No other wells but No. 3 had their water pinked. All the cisterns in barracks and cook-houses are washed out twice a week with a strong solution of permanganate, and, needless to say, are again cleaned and disinfected when found to contain the Eberth bacillus. In the case of the well supplying the R. A. plunge bath this had to be done twice before it could be used. Samples of water together with some soda water were sent to Mr. Hankin for bacteriological examination from time to time during the year. He reported in April that he found the enteric bacillus in the plunge bath and in the well supplying the plunge bath; in May that he found the bacillus in a *chattie* used in a bakery in

the R. A. regimental bazar, in a *chattie* in No. 12 barrack, and in a tank in No. 36 cook-room ; in June that he found the bacillus in a tank in No. 5 barrack, and in a tank in No. 44 cook-house ; in August that he found the bacillus in the large cement cistern attached to No. 1 well. Barracks 1, 2, 3, 4 furnished 12 cases of enteric fever, barrack No. 14 three cases, and barrack No. 18 five cases, in all 20, or two-thirds of the cases admitted from barracks. It was ascertained that the men living in barracks 1, 2, 3, and 4 drank from the cistern of No. 1 well in which the enteric bacillus had been found, and did not use the water in their barrack rooms that had been pinked by permanganate of potash. Their food was also cooked in No. 36 cook room in the tank of which the bacillus had also been found. It must not be lost sight of that the water from No. 1 well was used up to the end of November by all, and that the enteric microbe was found in a *chattie* in No. 12 barrack, in a tank in No. 5 barrack, and in the cook-house of No. 8, yet the admissions from these barracks were but 4, and that after November there were 4 admissions from barracks 2 and 4. The admissions from barracks 14 and 18 gave negative results on trying to trace the disease. There were no admissions from 9, 15, 16, and 17. The 3 cases admitted from the R. A. lines during March and April may possibly have a connexion with the finding of the bacillus in the well of the plunge bath and the rinsing out of the milk cans with this water. In nearly all the cases admitted a history could be traced of the men having been employed on some duty outside barracks, such as signalling, field training and musketry some 10 to 16 days prior to the onset of the febrile symptoms. The well water in the commissariat yard and the water used in the Outram and Roman Catholic institutes gave negative results on bacteriological examination.

Shahjahanpur.—The absence * of enteric fever was due, I believe, to the improved milk and butter supply, and general attention to sanitary details, rather than to the addition of permanganate of potash to the wells, as none was added in the early part of the year. As soon as cholera was reported in the district, the permanganate was added to all the wells not only in barracks but to every well in cantonments, and repeated at intervals of from 7 to 10 days as long as the epidemic lasted in the district. Since then it has been in daily use to wash all vessels in which drinking water is carried and stored. There were also no cholera cases among the troops. It is difficult to say how far the result was due to the permanganate of potash in the wells ; but I am of opinion that its use as an addition to, and not in place of, other sanitary details is decidedly beneficial.

Ranikhet.—The number of cases of enteric fever exceeded that in any previous year. It is difficult to account for this, as more care and precautionary measures are steadily being adopted yearly. The pinking of the drinking water with permanganate of potash, which has been steadily adopted since the 1st of May last, has, it is believed, had a very salutary influence in checking the disease ; and certainly in all samples of drinking water in which this chemical has been used, the enteric microbe has quite failed to be detected. Very many samples of water for drinking, cooking and ablution purposes have throughout the year been submitted to Mr. Hankin for bacteriological analysis, and with but few exceptions has the enteric microbe been detected. The enteric microbe was traced in spring No. 10, used for washing purposes ; in water used for washing milk tins in the standing camp ; in the water of the cistern of the Station Hospital cook-house ; in the cistern of the cook-house of the coffee-shop of the Kompur barracks ; in the sink of the cook-house of the coffee-shop of the Kompur barracks. In no samples of milk or articles of food, of which many have been submitted for analysis, has the enteric microbe been detected. The double water-supply constitutes a constant danger. But in no instance since using permanganate of potash has the enteric microbe been detected in drinking water in the many samples sent from time to time for examination ; and it may reasonably be presumed in the present state of our knowledge that the judicious use of permanganate of potash in admixture with the Ranikhet water supplies is adequate to destroy both enteric and cholera microbes. Next year, it is hoped, the use of this chemical may afford us some further information, but in the meantime, its continuance is much advocated.

Chaubuttia.—The water-supply for all purposes has been obtained from the " Forest Spring ". All vessels, *mussacks*, *pakhals*, etc., for carrying water, all receptacles for storing, etc., have been periodically inspected and cleaned with potassium permanganate solution. Latterly all water has been drunk pink, the solution of potassium permanganate

* The man whose admission is shewn in Table VIII contracted the disease elsewhere.

being added each day, and the men using the water readily. This has also been done in the native regimental bazar, the inhabitants making no objection to the "pink water."

Naini Tal.—Much enteric fever and cholera prevailed in the civil station; and the careful treatment of the water-supply used in hospital and barracks, as noted below, may have been instrumental in preventing the spread of these diseases to cantonments. The hospital supply was derived from the municipal stand-pipes. All water used for drinking was boiled. It was tinted pink with a solution of permanganate of potash, and stored for use in the galvanised tubs which used to contain the Macnamara filters. *Surahis* in use are weekly cleansed in a solution of permanganate of potash; and frequently renewed. The supply for the barracks is derived from the lake, passed through filter beds, and then conveyed in *mussacks* to Kali Khan. It is all boiled before being used for drinking, and stored in the above mentioned galvanised iron tubs, which were kept locked, the water being drawn off by taps. The above mentioned tubs and the *bheesties' mussacks* were daily cleansed with a solution of permanganate of potash.

Meerut.—The water-supply and the milk from the dairy were at once examined chemically and bacteriologically, as well as the surroundings and media for drawing and conveying such, but no cause could be found. The water and milk contained the *micrococcus Ghadiallii*. N. Battery, R.H.A., boils its water, and all use the permanganate of potash treatment It was found on an examination of some of the water, as well as aerated waters manufactured in the bazar and supplied to the Good Templars' Hall as well as to a *chuckla* much visited by the men that the enteric microbe existed therein; and the fact that the married families were free from the disease increases our suspicion about the bazar. Notwithstanding the boiling of water and disinfection by permanganate of potash, I am of opinion that until the whole system of the water-supply is altered, and there is a direct delivery to all quarters without the intervention of *bheesties* with their *mussacks* and buckets, we shall never eradicate the disease, though with all the precautions as to cleanliness and disinfection now taken we may lessen such. As a teetotaller of 33 years' experience I consider the pinked water anything but a pleasant compound to have to swallow.

Muttra.—During the period over which the six admissions occurred permanganate of potassium was in daily use in all water used for drinking and cooking purposes. Moreover the *surahis* used by the men in barracks and hospital were washed out at frequent intervals with permanganate solution. As men were constantly going to Agra and other stations on pass, and when visiting the bazars and city are careless as to what they drink, there is little doubt that the source of infection was outside cantonments.

Delhi.—The one case occurred after the introduction of the use of permanganate of potassium, and as no other case occurred during the year since the water-supply was laid on from the municipal mains, the action of the drug cannot be pronounced on. It is evident that the immunity enjoyed from this disease is due to the present water-supply.

Roorkee.—With this possible exception no case of enteric fever originated in Roorkee during the past year, a freedom from the almost universal occurrence of the disease that has not been enjoyed for at least thirteen years previously. At the beginning of the year it was recommended that all drinking water should be boiled before being passed through the Macnamara filter, the sand to be first washed and then boiled before charging the filter every two months, the animal charcoal to be roasted every two months at the same time that the sand was boiled. These recommendations were carried out In accordance with instructions received here 12th May 1896, all filters were treated with permanganate of potash solution weekly from that date; also all vessels for containing drinking water (such as cookhouse tanks, *surahis*, etc.), were daily emptied out and weekly cleansed with permanganate solution. On 31st May the circular from Army Head-Quarters was received authorising the withdrawal of the filters, the provision of permanganate of potash, and of fuel for boiling water "where special circumstances, such as cholera, enteric fever, or a suspicious water-supply, require it." As this station had for many years never been free from enteric fever, I considered that it was advisable to boil the water. The only alteration, therefore, was the discontinuance of the Macnamara filters, boiling and the use of permanganate being continued as heretofore. The water used for bread making has also been boiled. On 8th August, in consequence of the occurrence of a case of cholera in Rurki city, Mr. Hankin's rules for

the thorough treatment of all drinking water with permanganate were recommended to be adopted. These have been in force until the end of the year, and have not, as far as I am aware, met with any objection on the part of the men, who do not seem reluctant to drink the "pink water". Although there is no real evidence at this station one way or another, there is a presumption that it was not the permanganate that prevented enteric, because its use was not commenced until 12th May, and enteric has generally appeared here earlier in the year. The same precautions have been taken for mineral waters, as for ordinary drinking water.

Chakrata.—The enteric bacillus was found in samples of water taken on 25th April from "C" spring, the drinking water-supply of the station at its source, and also after its distribution. It was found in samples collected on 14th May from a barrack filter, from a *pakhal*, from a *mussack*, and from a spring close to the barracks, which, however, was not supposed to be used for other than garden purposes. Again in samples collected on 18th May from "C" spring at its source, and from a cookhouse tank the enteric microbe's congeners were detected. That the epidemic of enteric fever in Chakrata was not more widespread is very remarkable The enteric dejecta have been always carefully incinerated.

Landour.—No cases of enteric fever were admitted. Permanganate of potash has been regularly added to purify the drinking water since June 1896. It is difficult to say whether this measure has been beneficial or not in preventing the disease; for in the previous year (1895) one officer only was admitted, and he had come up from the plains with the disease upon him. In 1894 two men were admitted, and in 1893 one man was admitted. Analysis of the water shows it to be very pure, and there is no possibility of contamination, provided the *pakhals* in which it is carried up the hill are in a clean state.

Agra.—The treatment of the drinking and other water with permanganate of potassium was commenced in February, and carried out very stringently, especially so in the East Surrey Regiment, as the men believed in it thoroughly. At first it worked like a charm, as the cases decreased, and May, June, and July were practically free from the scourge, a case admitted on the 28th July being the only one recorded. August remained almost free, but a case occurred on the 21st. Then the outbreak commenced, and cases came in rapidly. Every imaginable source of infection was examined; food, drink, and supplies of all kinds, the soil in which vegetables were grown, the water in which they had been washed, etc., were all bacteriologically examined by the kindness of Mr. Hankin, but in none of these was the enteric microbe found except in the water supplied to cantonments by the municipality. The microbe was found at this time in every specimen examined but one. The microbe was also found in a flourishing condition in the pink water in the receptacles used for holding the drinking water both in hospital and barracks, although every care was taken, and the permanganate solution introduced at night, so as to insure its producing the necessary effect. After consultation with Mr. Hankin we commenced making experiments with the *micrococcus Ghadii*, discovered by him to be antagonistic to the enteric microbe. It was tried in the swimming bath at the Fort, which was found to be infected with the enteric microbe: in four days there were none. About the same time it was taken into use at the Agra club; then the water supply at the Fort was treated: with an almost immediate cessation of cases; and lastly the water of the whole cantonment, and the disease at once began to ameliorate in a very marked manner. Whether this was *post hoc* or *propter hoc* I am unable to say, but this I can state with confidence that from the time the water-supply was treated with the micrococcus the number of admissions fell rapidly. It is worth investigation how long the power of the microbe lasts, although on this point I may add that at present we are practically free from enteric fever. No section of the garrison escaped. Several children also had the disease, but no women. I must add to my remarks regarding the micrococcus treatment, however, that the drinking water was all boiled, and is still being boiled.

The monthly distribution of enteric fever at Agra in 1896 may be seen in Table VIII.

Nowgong.—Filters have been done away with, and permanganate of potash used in the water instead. During the cholera permanganate of potash was used in the wells, and precautions taken to prevent contamination.

Jhansi.—The water is abundant and chemically pure. On July 25th filtration was discontinued, and the permanganate of potash was added to all drinking water as directed by Mr. Hankin. Since the 24th October the additional precaution of allowing the water to stand for 12 hours after the permanganate had been added to it was also adopted. So far as I am able to judge, this treatment of the drinking water has had no effect in reducing the number of admissions for the disease. In accordance with a recommendation made by me the water is now to be boiled for one month, commencing from 1st January 1897..... Although the suggestion made in last year's report that all excreta should be destroyed by fire has not been carried out, it appears probable that excreta from enteric fever patients will in future be dealt with in this way.

Table VIII may be consulted with regard to the above. The experiment of boiling the water during the month of January only is a very useless one; because, as January usually has but little enteric fever, the result is very likely to be inconclusive.

Umballa.—The decrease in the number of admissions this year is, I think, principally due to the strict enforcement of the rules as to the boiling of all drinking water; although the fact that over half the admissions occurred in November and December might seem to show that the previous decrease was due to other causes. I am more inclined to think that in some mysterious manner the disease accompanied the Royal West Surrey and the Black Watch, the former regiment reaching Umballa on the 6th November, and the latter on the 21st October. And in addition since the 28th December to the present date, 21st January 1897, only five patients have been admitted suffering from the disease.

Dagshai.—Mr. Hankin detected the enteric microbe in the water from the cook-house tub of No. 7 barrack and in the water tank of No. 8 barrack on the 16th July. A specimen of water was sent from the large drinking water tank at the same time, and analysis proved the "pure" water supply to be contaminated at its source. From the 18th July all potable water was treated with a six per cent. solution of potassium permanganate; and from the 28th August the water was also boiled previously to being treated with the permanganate. All *mussacks* used for carrying drinking water were disinfected once a month with quicklime. There was no diminution in enteric admissions after the use of permanganate, but an increase. I am not prepared to give any opinion as to the value of this prophylactic. The last two men admitted were total abstainers; and it cannot be contended that they had contracted the diseases before the adoption of the special precautions. The present water supply at Dagshai is from 3 or 4 springs in the two hills immediately under the barracks; so that it does not appear at all unreasonable with a geological formation such as we have at Dagshai, to assume that there are channels from the surface of the ground, with its many deep fissures, communicating direct with these streams. Indeed, this is the only way the water supply at its source could be contaminated by human beings. I consider that the epidemic of 1896 was water-borne, and that the water was contaminated by the enteric microbe introduced from the plains, or from the road between the plains and Dagshai. There were no cases in the Military Prison, and no cases have occurred in it for 13 years, though the water, milk and food supplies are the same as for the troops.

Subathu.—From the records and data at my disposal I cannot but think the source of the outbreak was the water from No. 1 spring, in which the enteric microbe was detected. This acting on troops of very recent arrival in the country produced the very serious outbreak of 1896. As soon as water was no longer taken from this spring, as new *pakhals* and *mussacks* were brought into use, and as all the water was boiled there was marked diminution, and final disappearance of enteric fever. The specific microbe was detected by Mr. Hankin in the water of the upper reservoir, on a piece of a *pakhal* used in the supply of water to No. 14 barrack, in soda water, in water from the water-bottle of a soldier who got enteric fever, and again in the water of the upper reservoir. There was a preponderance of cases in the company occupying No. 14 barrack, and a marked improvement in the health of that company after it moved out under canvas. One is struck with the fact that no case occurred amongst the officers, many of whom are as young as the men; and that no case occurred amongst the women and children, all of whom lived in much the same surroundings, under the same climatic influences, and had the same milk and water supply. The water *pakhals* were regularly cleaned out with strong permanganate solution, and the water, stored in clean zinc tubs, was invariably

kept of a pink tinge with permanganate, a non-commissioned officer being detailed to look after this alone.

Jutogh.—Permanganate was added to the water of the infantry detachment from the 18th May, and frequent inspection showed that this treatment was carefully carried out; but cases occurred in the same proportion after that date.

Rawalpindi.—There were 36 cases against 64 in 1895, 35 in 1894, and 94 in 1893. The cause of the disease cannot be traced so far; but no doubt the bazars must be looked upon as a source of infection, though the strictest sanitary arrangements were in force under efficient supervision. The instructions contained in a printed circular dated April 16th regarding the use of permanganate of potash in drinking water, etc., were carefully carried out by all the corps in garrison, and with seemingly satisfactory results.

Sialkot.—The supervision by European orderlies of water and food supplies has been especially insisted upon. The treatment of water by potassium permanganate has been carried out.

Murree.—The excellent water supply, strict attention to sanitary surroundings, effective supervision over milk and other food supplies brought into barracks, have all tended to reduce the disease and keep the station healthy. The stools of all enteric cases have been destroyed by fire and sawdust.

Nowshera.—The cisterns used for drinking purposes were treated with permanganate of potash from June 1st to September 15th. The wells used for drinking purposes were treated with permanganate of potash from the 25th to the 29th July, and again in September. From the 1st June to the 15th September 10 cases were admitted out of the total 18* for the year. The water was boiled from the 1st January to the 30th June; and 15 cases of enteric fever were admitted during this period. During the month of June the water was both boiled and treated with permanganate of potash; and in June there were 8 admissions, the highest of any month during the year. From the 15th September to the 12th December the water was neither boiled nor treated with potash; and only one admission from enteric fever that had a local origin occurred during this period. Of the 5 men admitted in May 4 had done a course of musketry during the period of incubation. These men during the musketry course may have drunk some bad water; or the fatigue may have had some effect on their constitutions.

Cherat.—At Cherat 6 cases occurred after the men had been more than 21 days in the station; and in the absence of enteric fever bacilli in Chupri spring water, it is most probable that the disease was due to defective drainage, or to foul water surreptitiously drawn by native water carriers, and introduced into food or drink.

Peshawar.—The sanitary surroundings of the water works were improved, the storage tanks were purified, the drinking water was boiled and treated with permanganate of potassium, the barrack kitchens were purified, and the intrusion into them of persons of the sweeper caste was forbidden; the conservancy arrangements were improved, and the filth trenches removed to a greater distance from barracks; all excreta of enteric cases, as well as those of other acute diseases, were destroyed by fire. In August the disease appeared to have been eliminated from among us, and it was supposed that this had been effected by the purification of the water works and kitchens. The arrest, however, was but temporary.....Some of the fresh cases of apparently local origin were attributed to the eating of watercresses grown in water liable to pollution. The selling of watercresses in barracks was prohibited, and the men were warned of the danger of eating uncooked vegetables. Exposure to the sun, especially on the rifle ranges, has sometimes seemed to act as an exciting cause. When going to the ranges the men are required to fill their water bottles with the boiled and purified water which is always available in the barracks. The following are some of the remarks of the Principal Medical Officer, Peshawar District:—Enteric fever is steadily increasing at Peshawar, 1896 being the worst year for some time except 1895, when, owing to the Chitral campaign, circumstances were exceptional. What is still more unsatisfactory is that since May 1895 every month except one shows admissions for this disease.....Samples of the Peshawar drinking water were sent to Mr. Hankin, who reported that no enteric microbe was detected in any of the samples. The enteric germ doubtless exists in and around the station, and the vehicles by which it may gain access to the human body are so various as to make it practically impossible to exclude all.

* 18 of local, two of extraneous origin: total 20. See Table VIII.

The only plan would seem to be to prevent a fresh accession of enteric germs by burning all discharges from enteric cases, and trust that already existing germs may gradually lose their vitality. A beginning in this direction has been made under the orders of the Principal Medical Officer, Punjab Command, and since last October all enteric excreta have been burned.

Meean Meer.—The reduction in enteric fever is apparently coincident with increased efforts to ensure and maintain purity of the water supply. Still it must not be forgotten that while the admissions for simple continued fever in 1894 and 1895 were practically *nil*, there were 181 during the past year. Regarding statistics of fevers, however, I think that accurate numbers will never be obtainable until the diagnosis of the type of fever is ordered to be made on the termination instead of at the beginning or during the course of a case.

Fullundur.—Since the month of April all the drinking water in the barracks and hospital has been treated with permanganate of potash, and in addition it has been boiled in the hospital.

Mooltan.—As regards the local cases, no cause for the disease has been discovered, yet in all probability the malady was contracted in the city or surrounding villages, because the women and children had no cases, and because, had the germs of the disease been present in the milk or water supply, etc., of the cantonment, a larger number of men would most likely have been affected. Moreover, the drinking water was examined by the Chemical Examiner at Lahore and by the Bacteriologist at Agra, and no enteric fever bacilli were discovered.

Dalhousie.—We cannot fail to be struck with the scanty improvement effected by sanitary advances. Sanitation, especially during the past twelve months, has been carried out with an attention to minutiae undreamt of a few years ago. Pure water has been carried by pipes and distributed by hydrants to the standing camps at Tikka spur and Mankote, as well as to the barracks at Balun. The use of *mussacks* and *pakhals* has been abolished, except at Banikhet, where, however, the water was boiled before issue, and whence not a single case of enteric fever appears to have come. For a time the water was treated with potassium permanganate, but this appears to be very unnecessary in Dalhousie. Mineral waters in barracks and camps have been most strictly supervised. Details of kitchen sanitation, even to the condition of dishcloths, have been carefully looked into. The milk and butter supply has been under close observation, including the keeping and feeding of the cattle. Bakeries and sweetmeat factories have been under constant supervision. The men by no means lacking in intelligence, have been frequently warned of the danger they incur by neglecting the precautions laid down for them, and yet the result cannot be said to be encouraging... . From the facts, I think, we may safely conclude that the disease in every instance save one was contracted out of barracks, and under conditions at present almost entirely outside our reach. Nothing but inoculation of every young soldier with preventive serum will, I believe, stamp out enteric fever from the army. Sanitation, pure and simple, applicable as it is only to certain limited areas and under the most favourable place-time conditions, has failed, and, I am convinced, will fail to extinguish the disease.

Madras.—The bathing and ablution rooms are supplied with water from the “seven wells,” unfit for drinking. The cooking and drinking water comes from the “red hills,” and is said to be good, but it is all boiled before use. The supply is constant and abundant, and is obtained from standpipes about the barracks.

Pallavaram.—The drinking water is obtained from covered wells in cantonment, and before use is boiled and stored in Macnamara filter tubs under lock and key.

Bangalore.—The Ulsoor and Miller’s tanks are the principal sources of water supply for the civil population, but this water is used by the troops only for ablution purposes, their drinking water being obtained from the slaughter house well. The water is conveyed to the barracks and hospitals in barrels, and then boiled, and since August permanganate of potash has been used, with as yet doubtful benefit A water scheme (Hesserghatta) has been sanctioned, and the water pipes are being laid.

Cannanore.—Since the beginning of February filtration has been abandoned, and the water has been boiled prior to use. Towards the end of the dry season, when the wells were becoming empty, the water at times held sediment: as enteric fever was then prevalent, Condry’s fluid was then added to the wells and the receptacles.

Calicut.—The drinking water is first boiled and then treated with a solution of the permanganate of potash.

Secunderabad.—The regiment principally affected was the the 1st Northamptonshire occupying the 2nd British infantry lines, Trimulgherry. During July and August 29 out of 45 cases occurred in the men of this regiment. In the absence of bacteriological examination it is impossible to account for this great disparity. The drinking water, which is conducted to the lines occupied by this regiment by means of pipes from a deep covered in well, was all boiled without filtration throughout the year. It was, however, discovered that the water was being distributed in *mussacks* to the barrack rooms after having been boiled. This practice was discontinued on the 17th July, and at the same time orders were issued for all milk to be boiled, and the purchasing of bazar butter was prohibited. A diminution of the number of cases was observed about three weeks after these precautions had been adopted. It would be unreasonable to conclude that the disease was contracted in the bazars, as it has been proved that the men of the Northamptonshire Regiment frequent the bazar less than the men of any other corps in this station. In the 1st British infantry lines the water was boiled only from the 1st December. Since June in both lines a small quantity of the saturated solution of permanganate of potash is added daily to the boiled water sufficient to produce a permanent pink tint. After this it is conveyed in a zinc barrel, and transferred to the old Macnamara filter cases, which are padlocked, and from which it is drawn for use. The men at first objected to the taste, but do not now.

Bellary.—During the year the water was boiled; but lately permanganate has been taken into use instead.

Rangoon.—The drinking water is treated with alum and boiled.

Meiktila.—The water for the troops was got from the lake. It was of bad quality; but was treated with six per cent. solution of potassium permanganate before use, and lately with alum in addition.

Mandalay.—The water from the moat is used for all purposes, and, although it is constantly exposed, and liable therefore to pollution, especially at night time, my experience does not lead me to attribute or trace any specific disease to its use, so far as the British troops are concerned. Strict supervision is carried out to prevent contamination by human beings as well as the lower animals. All water used for drinking purposes is boiled, treated with permanganate of potash and alum, and subsequently stored in the old filter cases, which are under lock and key. Water is conveyed from the moat to the barracks by means of new kerosene tins, and *mussacks* are now no longer used for the conveyance of drinking water. The whole procedure is under careful supervision I cannot give a decided opinion as to the virtue of the addition of permanganate of potash, more especially as enteric fever does not exist in Mandalay to any extent. There were only 3 admissions from enteric fever in 1896, against 4 in 1895, 8 in 1894, and 6 in 1893. The improvement is no doubt due to the measures just described for safeguarding and purifying the drinking water; and such cases as did occur were probably contracted outside Fort Dufferin. Mandalay, as I remarked in my report for 1895, is remarkably free from enteric fever.

Shwebo.—The source of the water-supply is open to pollution, as it receives the rainfall and overflow from the surrounding higher ground. All drinking water is boiled and treated with alum and permanganate of potash before use.

Bernardmyo.—The drinking water in hospital and barracks is boiled before use in tins kept especially for the purpose in the cook-houses.

Poona.—The diminution of enteric fever, 35 cases against 47, may in a measure be due to extra care taken over the water supply. Since May the water has been either boiled or treated with permanganate of potash.

Most of the cases occurred after May, and the total number of cases, though less than in 1895, was greater than in 1894 or 1893.

Ahmednagar.—The water supply is obtained from the Bhingar Channel, an underground conduit leading from a covered well not far from the source of the Bhingar stream. The water was analysed twice during the year, once before and once after the monsoon,

and found to be of good quality chemically; but a more reliable test would be a bacteriological examination, the water being liable to pollution at the various shafts opening into the aqueduct from which the natives draw their supplies. Boiling of all drinking water has been carried out in barracks since the 14th March 1896; but it is possible that the men attacked may not have abstained from drinking unboiled water at all times in barracks, or may have partaken of bazar-made beverages. The number of cases of enteric fever in 1894 before boiling was introduced was 45; whereas in 1895 and 1896, boiling being practised, the numbers were 11 and 13 respectively. The drinking water is no doubt frequently to blame for the outbreak of enteric fever, cholera and dysentery; but I am strongly inclined to believe that it is not the only agent by which these diseases are introduced into barracks. I believe it would greatly improve the health of the troops if fewer natives were employed in barracks than is the custom at present, and if all the handling of food and cooking, and everything about the cook-house, were done by the men themselves, as at home.

The number of cases in 1893 was 13, in 1892 it was 17, and in 1891 it was 21. There is, therefore, no proof that the reduction from 45 cases in 1894 to the smaller numbers in 1895 and 1896 was due to the boiling of the water.

Kirkee.—Water is brought in pipes from Pashan Lake, and is distributed by standing hydrants. The work connected with the filtration of the water at the lake is nearing completion. Since May the use of the filters at the barracks has been discontinued; and the water since then has been boiled for drinking purposes, permanganate of potash and alum being used as required.

Satara.—Rough analysis shows the water-supply of the barracks for British infantry and of the station hospital, derived from the Kas Lake and from a spring on Yuteshwar Hill, to be very pure. The Fort water-supply is obtained from a covered well in the Fort enclosure. It is also of good quality. A pond in the immediate vicinity of the well is now, on my recommendation, being surrounded by a wire fence to prevent cattle fouling it. The water from this pond filters through the intervening ground into the well. The water from the well is conveyed to barracks in *mussacks*, which are regularly inspected and cleansed with permanganate of potash. All vessels for holding drinking water are cleansed with permanganate of potash once a week.

Purandhur.—The water-supply is probably as nearly perfect as can be. The four wells from which it is taken are kept locked, and only opened under police supervision twice a day. Only Government *bheesties* are allowed to draw water. At night the key is in the possession of the Quarter Master Sergeant. All barrack *mussacks* are marked with a metal letter "W" or "D" to denote that they are used for washing or for drinking water exclusively. The only weak point in the system is the use of *mussacks* for carrying the drinking water. The water was analysed twice in the course of the year, and found to be of good quality. The use of Macnamara filters was suspended in the month of May. Since then *mussacks* are cleaned out twice weekly by having 40 grains of permanganate of potash placed in them when full: buckets are similarly cleansed with 10 grains per bucket: these are allowed to remain filled in this manner for half an hour, and then well rinsed. Three grains of alum per gallon are placed in the galvanized cisterns every day. Boiling has not been considered necessary.

Nasirabad.—The drinking water was supplied as formerly from Dilwar well, which is about 2 miles north-east of barracks. The supply is sufficient without being liberal. It is boiled, cooled, and treated with permanganate of potash, and stored in filter cases, and afterwards drawn into *surahis*, which are on stands in the barrack rooms. Great care is taken to secure good, wholesome drinking water. The *surahis* are washed out daily with permanganate solution, and old *surahis* are broken up when necessary. Filters and *mussacks* are not used. The analysis of this water made from time to time showed it to be a good, wholesome drinking water, and free from enteric microbes. For ablution purposes water is obtained from Danta wells, some five miles distant. It is brought in pipes to a large reservoir, and then distributed by standpipes throughout barracks, cantonment and bazar. The quantity is limited. The quality is not very good, and the Government Analyst, North-Western Provinces, frequently reports that he has discovered the enteric microbe in this water. Notices are posted at every pipe that it is "Not for drinking." Both the Dilwara and Danta wells and reservoir are

regularly treated with permanganate once a week. . . . The other cases I attribute to the men drinking the Danta water, which they ought not to do. How the Danta wells become infected, I do not know. . . All water and milk intended for use is boiled. Possibly the men get enteric fever where they get venereal diseases, as I have several times admitted a man with venereal sores, and within a week he has shown signs of enteric. The bazar and surrounding villages were out of bounds the greater part of the year, yet the men got venereal disease all the same. The married families have escaped enteric fever during the year.

Neemuch.—The drinking water for the British troops, the hospital, the bakery, and the soda water factories is obtained from No. 26 well, known as the hospital well. . . . It has been disinfected regularly with permanganate of potash. Attached to the well is a filter chamber containing sand and charcoal, which are changed twice yearly. A scheme has been proposed to remove the filtering material, and use the filter chamber for sedimentation by means of alum, syphon off the supernatant water into the reservoir which at present exists, and there add to it permanganate of potash. . . . At present the filter is disinfected monthly with a strong solution of permanganate of potash. For a part of the year the water was boiled, and permanganate of potash added to it in barracks before drinking. Although the number of cases of enteric fever which could be attributed to this station was small, and although there was no case of cholera, still neither the boiling nor the disinfecting of the water had any effect on the malarial fevers.

Indore.—All the water for drinking and cooking purposes is boiled and the well is disinfected twice a month with permanganate of potash. . . . The *mussacks*, cisterns and *ghurras* are also periodically cleansed with the same agent. . . . I do not think that either the water-supply or the milk was the source of infection.

Deesa.—Macnamara filters have been abolished, and only their cisterns retained to hold the drinking water after it has been treated with alum and potassium permanganate. . . . The only other probable cause when all the drinking water in cantonment has been rendered harmless is that the people who are attacked have not carried out the sanitary instructions they received. This was admitted in one case, as the man said that while out fishing he drank water from an impure source. All the cases broke out when the Government of India regulations regarding potassium permanganate were being carried out, and had been in operation for four months.

Ahmedabad.—The municipal water-supply was introduced in September. . . . The drinking water is first boiled, and then treated with permanganate of potash. The result has been a marked diminution of enteric fever, as contrasted with last year.

Hyderabad.—The water is purified for drinking and cooking purposes for the troops by the addition of alum. The water is stored in galvanised iron tanks, which are emptied daily and scrubbed weekly. The water is drawn off, and kept in *surahis* and *chatties*, which are cleansed and frequently renewed. Macnamara filters were disused from May 28th last.

Kamptee.—Eleven cases of enteric fever occurred against 17 cases last year. I attribute the decrease to the rigid inspection of the drinking wells, and to the daily medication of these by permanganate of potash, which was put into force about the middle of the year.

The admissions in 1895, 1894, 1893, 1892 and 1891 were, respectively, 16, 12, 9, 11, and 6.

Sitabaldi.—The water used for drinking and cooking is now daily medicated with permanganate of potash.

Quetta.—Samples of water from various places and samples of recently made soda-water were sent to the Chemical and Bacteriological Examiner, North-Western Provinces and Oudh, and he discovered the enteric microbe in some of those. It is strange that in two samples of water coming from the same source, but from different taps, it should be found in one, but not in the other. How it got there seems a mystery, as the water is piped in a distance of 13 miles from an uninhabited collecting area in the mountains, which is looked upon as practically free from human contamination. Two other samples of water from the same taps were sent later, and they were both pronounced free from

the enteric microbe. Its having been found in samples of soda-water can be understood through the liability to contamination in the process of manufacture, though every precaution was taken against this. . . . I believe that the disease originated in the city of Quetta, and that most of the cases were contracted there. It is possible that in some instances the disease, having found its way into barracks, may have been spread by contact, by native servants, through the agency of flies, etc. The following steps were taken to prevent the disease, and to check its spread. At the station hospital the practice pursued by me last year of boiling all drinking water and of cleansing the water goblets, etc., twice weekly with a strong solution of permanganate of potash has been continued since the beginning of the year. Macnamara filters were stopped in hospital on the 2nd November 1895, and in barracks on the 20th November 1895. On the 6th June 1896 medical officers of districts were ordered to see that all cisterns, *surahis*, *ghurras*, water-bottles, and other vessels for holding water, were washed out weekly with a six per cent. solution of permanganate of potash, and that the drinking water was faintly tinged with the same. On the 24th June a district order was published directing all *mussacks* and *pakhals* to be cleansed the evenings before parades with a strong solution of permanganate of potash, and that this solution should be left in them overnight. On the 23rd July a district order was published ordering all drinking water to be boiled. On the 5th July written recommendations were sent to officers commanding British corps that all milk should be boiled; but, as this was not carried out in every instance, a district order was published on 5th August ordering all milk to be boiled. A written recommendation was sent to officers commanding corps which owned mineral water factories that all mineral water should be kept at least three days before issue. The city was placed out of bounds to British troops from 9 A.M. to 5 P.M. Wire gauze doors were put on all the doors of the wards in which enteric fever cases were treated, with a view to keeping out flies; etc., etc. There was one case each of enteric among officers, women and children.

In the six years 1891-96 no other year had even half as many cases as 1896.

Mhow.—The water-supply for the garrison is brought into the station by means of 10" pipes from Baircha lake some five miles south of Mhow, a lake constructed on the site of an old village, and stored in a large open reservoir at the highest part of the cantonment . . . There is insufficient protection at the Baircha lake against chance pollution . . . A filter bed was originally sanctioned, but was never constructed in consequence of some engineering difficulty as regards the head pressure. Without it the tap water is a source of considerable danger to the community, necessitating, as it does, the boiling of all drinking water, and its treatment by alum and permanganate of potash constantly. The water is very muddy during the rains, containing a large quantity of vegetable *débris*, and is quite undrinkable without sedimentation by alum or filtration. . . . I think it would be a good thing if the well water were used for the drinking water of the troops, the tap water being used for washing, etc. I feel certain we should never reduce the number of enteric cases, however, to what it was before the introduction of the Baircha supply without filter beds . . . That Baircha water is responsible for the prevalence of enteric fever at Mhow in such increased numbers cannot be gainsaid, as shown by the increase of the disease since the tap water was introduced at the end of 1888 . . . The enteric bacillus was found in all the tap samples sent for analysis, and also in water taken direct from the Baircha lake itself during several months; but it was absent from samples of well water taken from the bazar . . . The 22nd Field Battery, which arrived here from Nasirabad, and camp of exercise in February almost escaped altogether, a circumstance which it is difficult to explain, as they used the same water and milk as the rest of the garrison . . . Five women and one child contracted the disease, a thing which is very unusual at Mhow. There was a case at the end of last year among the women of the Hussars who had just arrived from England, and that was about the first on record . . . The women suffered from enteric fever for the first time at Mhow.

The following table shows the actuals and ratios of enteric fever at Mhow for a series of years. The first very high ratio was in 1887, before the introduction of the Baircha supply, and there was a high ratio in 1880. The

medical officer is shown to be quite wrong in his remarks, just quoted, regarding enteric fever among women at Mhow :—

Years.	Men.	Ratio per 1,000.	Women.	Ratio per 1,000.	Children.	Ratio per 1,000.
1870	Nil	...				
1871	4	2·8				
1872	Nil	...				
1873	7	5·2				
1874	11	7·8				
1875	2	1·6				
1876	7	5·8				
1877	4	3·0				
1878	10	7·3				
1879	2	1·7				
1880	18	17·3				
1881	5	3·5				
1882	2	1·5				
1883	3	2·4				
1884	5	4·2				
1885	5	3·9				
1886	11	8·3				
1887	56	39·2				
1888	10	7·1				
1889	118	75·4				
1890	24	16·1				
1891	33	20·0				
1892	22	13·9				
1893	10	6·3				
1894	110	67·0				
1895	32	17·8				
1896	70	39·3				

The medical officer has submitted a long special report on the enteric fever of Mhow, from which it would appear that the measures adopted as regards the water-supply in the way of boiling, treatment with alum and permanganate of potash, and inoculation of the lake itself with the *micrococcus Ghadialii*, were really of little use.

Table VIII may be used to check some of the statements quoted from the medical reports.

16. There was a decrease of both morbidity and mortality from enteric fever in 1896. As compared with the corresponding ratios of 1895, the admission and death ratios (Table I) fell respectively by 0·8 and 0·41 per mille of strength. There were (Table IV) 1,795 admissions and 445 deaths, against 1,870 and 477 in 1895. The average number of men constantly sick from enteric fever was 260, and the average duration of a case was 53 days. The total loss of service due to disease was about 95,109 days.

17. The following table shows an increase in total fever mortality, which may be ascribed to the greater youthfulness and less average length of service of the soldiers of to-day :—

	1870-79.			1881-90.†			1895.			1896.		
	Enteric fever.	Other fevers.*	Total of both.	Enteric fever.	Other fevers.*	Total of both.	Enteric fever.	Other fevers.*	Total of both.	Enteric fever.	Other fevers.*	Total of both.
Army of India	2·03	1·42	3·45	3·79	·70	4·49	6·72	·59	7·31	6·31	·50	6·81

* Intermittent, remittent, and simple continued fevers.
† Excluding troops on active service in Burma during 1885 to 1887.

It shows in the years 1895 and 1896, as compared with the decennia, an increase of mortality from enteric fever, accompanied by a decrease in mortality from the other fevers, which is probably partly due to increased susceptibility to enteric fever on the part of the army from youth and recent arrival, and partly to the increasing frequency with which the diagnosis of enteric fever has been made.

18. The following table shows enteric fever in the geographical groups in the decennium 1886-95 and in the last two years :—
Enteric Fever in the Geographical Groups.

Admissions per 1,000.

PERIOD.	Burma Coast and Bay Islands.	Burma Inland.	Bengal and Orissa.	Gangetic Plain and Chutia Nagpur.	Upper Sub-Himalayan.	North-Western Frontier, Indus Valley, and North-Western Rajputana.	South-Eastern Rajputana, Central India, and Gujarat.	Deccan.	Western Coast.	Southern India.	Hill Stations.	Hill Convalescent Depôts and Sanitaria.
	I.	II.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XIIa.	XIIb.
1886—95	5·7	5·5	7·7	27·7	25·4	15·6	23·9	17·0	5·8	12·1	25·1	13·9
1895	8·9	4·9	11·0	37·8	25·5	27·8	22·8	21·7	9·6	10·3	27·0	19·5
1896	13·0	4·5	18·3	40·0	19·8	23·8	30·4	23·1	17·4	16·0	47·2	10·3

It shows that Groups V, VI, VIII, and XIIa especially, are apt to have high ratios of admission from enteric fever, and Groups I, II, IV, and X low ratios. It also shows at a glance how the groups compare with each other in 1896, and how 1896 compares with 1895 or with the decennium. Group XIIa had the highest ratio of 1896, and Group V the next highest, and in the same groups also the percentage of enteric fever in total admissions was greatest. Further particulars regarding groups may be obtained in Tables II, IV, and VIII.

19. The distribution of enteric fever throughout the year by stations and months may be studied in Table VIII. But the following shows those garrisons which had an average strength of over 1,000 in 1896, with the decennial ratios for reference :—
Enteric Fever in Stations.

STATIONS.	1896.		DECENNium, 1882—91.	
	Admission-rate.	Death-rate.	Admission-rate.	Death-rate.
Allahabad (a)	87·2	27·20	19·3	5·17
Ranikhet	72·1	10·58	32·6	5·01
Quetta	60·5	9·50	14·0	3·67
Peshawar	45·4	10·72	10·4	4·33
Agra	44·3	12·40	13·9	4·46
Mhow	39·3	5·05	19·2	5·31
Fyzabad	38·9	12·96	22·0	3·89
Meerut	33·4	7·49	15·9	4·93
Bareilly	32·6	9·21	34·2	8·67
Secunderabad	32·6	6·12	19·4	5·40
Umballa	24·2	6·92	10·6	2·49
Bangalore	24·1	8·20	18·1	3·66
Lucknow	22·8	8·41	32·7	5·62
Poona	16·9	5·81	10·5	3·58
Rangoon	13·7	1·71	2·6	1·80
Rawalpindi	12·9	5·36	19·9	5·34
Sialkot	11·6	1·45	32·1	8·13

(a) Including Fort Allahabad.

STATIONS.	1896.		DECENNium, 1882-91.	
	Admission-rate.	Death-rate.	Admission-rate.	Death-rate.
Wellington	11'4	1'91	5'7	1'95
Fort William	9'5	3'81	3'7	2'21
Kurrachee	8'1	'90	22'4	4'00
Mooltan	7'6	3'81	14'1	4'07
Belgam	6'9	86	2'9	1'19
Ferozepore	6'5	1'85	11'8	3'85
Aden	3'9	1'95	2'0	1'25
Fort Dufferin	2'9	'97	8'1*	3'10*
Colaba	1'7	1'65	4'6	1'59

* Four years.

The high position occupied by the decennial admission ratios of Bareilly, Lucknow, Ranikhet, and Sialkot will be observed, and the low position of the ratios of Aden, Calcutta, Bombay, Belgam, and Rangoon. The enteric fever of stations may be studied with the aid of Tables III, IV, and VIII. In paragraph 15 have been quoted the reasons given by medical officers for the prevalence of enteric fever in, or the absence of enteric fever from, certain stations; but in addition, the names of some of these stations will be found in Table V.

20. As certain hill stations have attracted attention of late years by the prevalence in them of enteric fever, and as there is a common belief that enteric fever tends to increase with length of occupation, the following table for hill stations is given, showing death ratios from the earliest year that enteric fever was separately shown in the tables of the Sanitary Commissioner with the Government of India:—

YEARS.	Ranikhet.	Chaubuttia.	Chakrata.	Dagshai.	Solon.	Subathu.	Jutogh.	Cherat.	Murree Hills.
1871 . . . .	...	...	...	...	...	1'30	...	16'50	...
1872	8'35	...	...	1'24	...	2'51	...	12'66	3'34
1873	1'60	...	...	...	...	2'64	...	2'95	...
1874	2'51	...	...	...	...	...	...	...	1'33
1875	'99	...	...	1'20	...	1'96	...	4'56	...
1876	'77	...	...	2'16	...	2'36	...	9'48	...
1877	'85	...	1'42	3'25	...	6'60	...	2'48	...
1878	2'35	...	...	11'22	...	17'72	...	3'01	3'57
1879 . . . .	...	...	3'38	1'97	...	11'27	...	10'14	5'30
1880	7'80	...	...	8'52	...	6'19	...	4'85	4'74
1881	3'00	...	1'40	...	9'43	2'51	...	8'33	1'32
1882	1'66	...	...	1'41	4'76	...	4'74	9'98	4'75
1883 . . . .	...	...	...	1'34	...	5'80	8'51	5'16	...
1884 . . . .	...	...	...	...	...	...	...	9'17	...
1885	1'68	7'55	...	4'29	5'41	18'58	...	16'43	2'85
1886	5'36	18'94	1'13	13'46	...	2'45	...	13'89	1'75
1887	5'49	8'65	4'14	2'46	4'02	4'11	4'44	22'35	4'40
1888	9'05	8'38	3'35	1'16	4'81	17'43	11'19	1'87	1'87
1889	3'05	...	12'64	2'45	...	12'63	3'72	1'66	2'33
1890	13'36	16'56	16'15	1'28	...	17'54	...	1'82	2'47
1891	5'46	...	5'28	1'22	8'58	...	7'38	31'12	7'91
1892	5'55	...	11'08	15'04	9'22	11'96	7'94	3'28	1'49
1893	2'05	3'19	3'01	10'53	18'18	8'21	4'55	27'43	5'59
1894	2'96	3'52	1'00	24'10	8'89	12'88	4'29	19'82	5'80
1895	2'94	12'86	15'69	2'52	8'40	3'84	8'73	9'85	2'40
1896	10'58	...	1'10	14'01	4'78	33'48	8'51	10'12	1'76

In the case of most of those stations bad years have occurred at more or less irregular intervals; but for some time past in the case of Dagshai, Subathu,

and Cherat the bad years have been very close together. Special investigations have been made into the sanitary condition of those stations, and generally suspicion has been thrown upon the water supply. Some remarks on the subject will be found in paragraph 15, as well as in Table V.

21. The enteric fever of regiments and of the different arms of the service may be studied in Table XIV. The admission

Enteric Fever in Regiments.

rate was highest in the engineers, and lowest in the artillery. The table shows that those infantry regiments which had an admission ratio of over 50 per 1,000 of strength were the 1st Northamptonshire, the 2nd Derbyshire, the 1st Royal Highlanders, the 2nd Border, the 2nd Lancashire Fusiliers, the 2nd Yorkshire, and the 1st Norfolkshire. The Royal Highlanders had arrived from Mauritius in February, and after 3 months at Umballa went to Subathu. They had 133 cases and 20 deaths. The 1st Norfolk at Allahabad had 93 cases with 32 deaths. All but two of the regiments received considerable drafts from home, 1,714 men arriving before the middle of April, 301 more before the end of October, and 245 between that and the middle of December.

22. The relation of mortality from enteric fever to age and length of residence in India may be studied in Table XVI. The

Enteric Fever and Age. Enteric
Fever and Length of Residence in
India.

results confirm those of former years. In the table (c) and (i) give the actuals, (a) and (g) the ratios per 1,000 of strength; while (b) and (h) are derived, respectively, from (a) and (g) in the manner described in paragraph 37. The table may be read as follows: The ratio or mortality from enteric fever per 1,000 of strength (a) was greatest in the age-period 20-24, and the relative liability of the same period was 46 per cent., that is, the highest; in the same age-period the total number of deaths from enteric fever (c) was 342, and out of a hundred deaths from all causes (d) 57 were from enteric fever; lastly, out of the total number that died at all ages from enteric fever (f) 78 per cent. were between 20 and 24 years of age. Again, the ratio of mortality from enteric fever per 1,000 of strength (g) was highest in the first year of residence, and the liability (h) for the same period was 36 per cent., that is, the highest; in the first year the total number of deaths (i) was 160, and out of 100 deaths 69 were from enteric fever; lastly, out of the total number that died at all periods of residence (l) from enteric fever 36 per cent. were in the first year of Indian residence.

Table XV gives some information regarding the relation of *admission* from enteric fever to age and length of residence in India. The age-period 20-24 included 53 per cent. of the total strength of the army, and in the same period the liability to fall sick of enteric fever was greatest, 42 per cent. In the succeeding periods the liability gradually declined. Again, it is seen in the table that the greatest liability to get enteric fever was in the first year of Indian residence, and that thereafter the liability suddenly declined. The lower part of the table, marked "B," shows that since arrivals have increased, and since the percentage in the army of men under 25 years of age and of men with less than 5 years Indian residence has been gradually mounting, the admission ratio from enteric fever has also been rising. The greater has become the supply of susceptible material, the more the disease has prevailed.

23. The monthly incidence of enteric fever may be studied in Table VIII.

Enteric Fever and Season.

In the period 1886-95 as a whole the chief enteric fever season, though the disease occurred in all

months, was the six months April-September, with one maximum in May and another in August.

YEAR.*	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	Ratio per 1,000.
1886-95 . . .	518	418	689	1,427	1,795	1,365	1,441	1,718	1,400	923	745	879	13,318	19·6†
1896 . . .	65	75	202	214	160	152	175	214	179	50	92	177	1,795	25·5

* The warning given in paragraph 3 as to the months not being calendar months applies here also.
† Including men on Field Service.

In 1896 the greatest prevalence of enteric fever was in March, April, and August; of simple continued fever in June; and of remittent fever in June and July. Of the larger groups Gangetic Plain had its maximum in March, Indus Valley in June, the Deccan and the Hills in August, Central India in September, Upper Sub-Himalayan in December.

24. No cases of typhus or of plague were reported in 1896. There were 27 cases of dengue at Allahabad: the symptoms were typical: all did well. Scarlatina gave 8 cases with one death. At Sitapur and Ranikhet the disease began in men just from England; while at Hyderabad and Quetta no particular source of infection came under suspicion. Fifteen cases of rubella were registered, 10 of them at Saugor and Bangalore. At the former station men just from England were attacked. There were only 12 cases of mumps, and not more than 2 at any one station. Erysipelas caused 108 admissions and 8 deaths; 21 admissions at Quetta, 8 at Rawalpindi, and 7 at Umballa. See Table LIII.

25. The admission and death rates from tubercle of the lungs rose somewhat. As in 1895, Table I shows that the Madras Command had a high admission ratio, Table II that the Deccan group had a high ratio, and Table III that this was due to the high ratio of Secunderabad. Again in 1896 the Welsh Regiment furnished a large number of invalidings from tubercle of the lungs; but the result of the inquiry mentioned in paragraph 26, page 42, of last report was unsatisfactory, the explanation put forward being that, as many of the men had been coal-miners, they might have contracted the disease before enlistment.

PERIOD.	RESPIRATORY DISEASES.		PNEUMONIA.	
	Admissions per 1,000.	Deaths per 1,000.	Admissions per 1,000.	Deaths per 1,000.
1886—95	30	·17	3	·60
1895	33	·57	4	·51
1896	31	·77	5	·64

26. Respiratory diseases caused less sickness, but greater mortality, than in the preceding year:—
Of the commands the Punjab had, as usual, the highest admission rate. As to groups, the greatest prevalence was not, as usual, in the Indus Valley, but in Group VIII, Ahmedabad and Nasirabad having had particularly high ratios.

The medical officer at Nasirabad says that respiratory diseases are attributable in many cases to the carelessness of the men in coming into the bungalows very hot and sitting behind wet tatties. He adds that the changes of temperature at this station are sometimes very sudden, and so apt to cause bronchial affections.

Probably in connexion with the prevalence of influenza, the admission rate from pneumonia rose to 5·2 from 4·4, and the death rate also increased. Upper Sub-Himalayan and Indus Valley were, as usual, the two groups in which pneumonia was most prevalent, but in 1896 the former had a higher ratio than the latter, which is uncommon. Bareilly and Meean Meer had the highest ratios in the Upper Sub-Himalayan group. In the same two groups the percentage of pneumonia to total admissions was also greatest. In Section III, paragraph 48, will be found a table showing the relation of pneumonia to influenza year by year, and also of the pneumonia of European troops to that of native troops and prisoners. Table XII shows that most cases occurred in the cold weather, and especially in January, February, and March; January and February having been the minimum months for dysentery, and January and March the maximum months for influenza. The stations with the greatest number of deaths were, in order, Rawalpindi, Peshawar, and Umballa; and their ratios stood in the same order. The medical officer at Rawalpindi says that the pneumonia was very severe and rapidly fatal in the winter months, when the cold was very intense and penetrating; and the medical officer at Peshawar that nearly all the cases occurred in January and the early part of February,* when the disease was prevalent and severe among the native population.

In Table IV it is stated that the number of European soldiers constantly sick from pneumonia was about 35, and the average duration of a case 35 days against 27. There were no deaths from pneumonia among the troops marching.

27. The admission and death rates from dysentery and diarrhoea fell considerably. This is presumably due to the absence of field service, as well as to the dry and non-malarious character of the year.

PERIOD.	DYSENTERY.		DIARRHŒA.	
	Admissions per 1,000.	Deaths per 1,000.	Admissions per 1,000.	Deaths per 1,000.
1886—95	30	·73	32	·06
1895	35	1·04	24	·07
1896	26	·67	20	·01

Dysentery was most prevalent in the Madras command and in the Bengal Orissa group. The same command and group had the highest percentage of dysentery in total cases, as may be seen in Tables I and II. It is usual for that geographical group to have a high dysentery ratio. In Table XIII it may be seen that dysentery was most prevalent in September, July, and December, and least so in January and February; in Table IV that of stations Secunderabad had the most cases; and in Table III that Poonamallee Depôt, Pachmarhi Sanitarium, and Barrackpore had the highest ratios.

* See Table XII.

At the end of a long and careful paper on what is known of the causation of dysentery, Janowski ⁽⁴¹⁾ of Warsaw thus sums up :—

Dysentery is etiologically not a single disease, and is apparently not caused by the action of a single parasite, but by the combined action of several varieties. From the data offered by the literature of the subject up to date one may conclude that the cause of dysentery is some association of bacteria. But one of its forms differs clinically and anatomically from the others: the so-called tropical dysentery is apparently produced by the association of a certain species of amœba with bacteria.

Kartulis ⁽⁴²⁾ writes also on the same subject.

In India R. Ross ⁽⁴³⁾ has found amœbæ in some cases both acute and chronic. It seems probable that acute dysentery proper and chronic dysentery in continuation of an acute attack may be of amœbic origin; whereas some of the milder forms, whether acute or chronic, which are more of the nature of intestinal catarrh with follicular inflammation and ulceration, may be caused by bacteria. The presence in the intestine of a very virulent form of the *bacillus coli*, which has been named the *bacillus coli dysentericus*, and many other points relating to the causation of dysentery, have been noticed by recent writers ⁽⁴⁴⁾.

Hepatitis. 28. Though the admission rate from hepatitis rose, the rise was confined to the milder forms, and the death rate fell :—

PERIOD.	HEPATITIS.*		ABSCESS OF THE LIVER.	
	Admissions per 1,000.	Deaths per 1,000.	Admissions per 1,000.	Deaths per 1,000.
1870—79	50	2·19	†	†
1881—90	26	1·33	†	†
1895	19	1·45	2	1·41
1896	23	1·25	2	1·22

* Including abscess of the liver.

† No data.

The Madras admission and death ratios were, as usual, highest (Tables I and III). Of the groups Burma Coast had the highest admission rate from hepatitis, and Bengal-Orissa the highest death rate from abscess of the liver. The percentage of admissions from hepatitis to total admissions was also highest in Burma Coast, and of hepatic abscess to total deaths in Bengal-Orissa. From a study of Table II it may be learned that, speaking generally, groups that had a high admission rate from dysentery, had a high admission rate from abscess of the liver; but that the order of the groups in hepatic abscess does not correspond exactly with the order of the groups for dysentery.

Of the cases of abscess of the liver which occurred in the army of India 34 per cent. were returned as having been associated with dysentery, or 52 cases out of 153. Of the 86 fatal cases 45 were associated with ulceration of the intestine, or 52·3 per cent., and 41, or 47·7 per cent., were not so associated. Among the 45 cases associated with ulceration there was a single abscess in 20, or 44·4 per cent., while there were multiple abscesses in 25, or 55·6 per cent. On the other hand, among the cases unassociated with ulceration there were 18 in which the abscess was single, or 43·9 per cent., but 23, or 56·1 per cent., in which the abscesses were multiple. Again, out of the total 86 fatal cases 38, or 44·2 per cent., had a single abscess; 48, or 55·8 per cent., multiple abscesses. Of the cases of single abscess 20, or 52·6 per cent., were associated with ulceration, while 18, or 47·4 per cent., showed no ulcerative intestinal

lesions. In contrast to this, among the cases with multiple abscesses 25, or 52·1 per cent., were associated, 23, or 47·9 per cent., unassociated, with ulceration. The ulceration in 9 out of the 45 cases in which it was present was, or appeared to be, non-dysenteric; 5 of the cases, or 55·6 per cent., having a single abscess, and 4, or 44·4 per cent., multiple abscesses. In two of the non-dysenteric cases the ulceration was that of enteric fever; and in one there was but a single abscess, in the other more.

In Table IV it is stated that there were 86 deaths in 167 cases treated, 14 remaining from the preceding year and 153 admitted; a case-mortality of 51·5 per cent. The same table shows that the average number constantly sick from hepatic abscess among 70,484 men was 15, and the average duration of a case 37 days.

It has been stated above that two of the cases of liver abscess occurred in the course of enteric fever. This connexion seems to be more common in India than in Europe. There were three such cases in 1892 and none in 1895; but there is no record with regard to 1893 and 1894. Assuming, however, that there were no such cases in those years, there would still be one case of abscess of the liver in every 1,612 cases of enteric fever for the five years. In contrast to this Lannois ⁽⁴⁵⁾, writing, presumably, of Europe only, says that liver abscess following typhoid fever is very rare, occurring, according to Schultz of Hamburg, once in 36,080 cases.

The question of the causal importance of the *amæba coli* continues under discussion. The prevailing opinion seems to be that abscess of the liver may be caused by various parasites, protozoal or bacterial, among which the *amæba coli* is perhaps one of the most frequent: that abscess of the liver, like dysentery, is not a disease of single causation ⁽⁴⁶⁾. R. Ross in India ⁽⁴³⁾ has found amœbæ in the scrapings of the wall of a hepatic abscess occurring in a case of chronic dysentery.

It has been stated ⁽⁴⁷⁾ that the Spanish troops in the Philippine Islands, though suffering much from dysentery, are free from abscess, and that this is due to their sobriety. But it must be remembered that the British soldiers in the West Indies, whose habits are presumably the same as those of their comrades in India, are comparatively very little subject to abscess of the liver ⁽⁴⁸⁾. Again, sober and temperate Europeans in India are by no means exempt from abscess of the liver, especially if they get dysentery, or are exposed to sudden and prolonged chill; though it is said that natives of India hardly ever suffer unless they are spirit drinkers ⁽⁴⁸⁾.

The following table shows that the mortality from abscess of the liver in 1896 was 17 times greater among European than among native soldiers, while it had been 70½ times greater in the previous year:—

CAUSE OF DEATH.	DIED PER 1,000 OF AVERAGE STRENGTH.		RELATIVE LIABILITY IN PERCENTAGES.			PERCENTAGE IN DEATHS FROM ALL CAUSES.	
	European troops.	Native troops.	European troops.	Native troops.	TOTAL 100.	European troops.	Native troops.
Abscess of liver	1·22	·07	95	5	100	8·2	·7

On the other hand, the admission ratio from dysentery among European soldiers was to the ratio of the native soldiers as 1:1·5. This matter was gone into at length in the report for 1894.

Particulars regarding the relation of mortality from hepatic abscess, and of invaliding from hepatitis, in relation to age and length of residence in India are given in Tables XVI and XVII respectively. The liability to death appears to increase with age more than with service, so far as the figures for 1896 go; and the figures for 1895 gave the same result.

The actuals and ratios for hepatitis and hepatic abscess of individual stations will be found in Tables IV and III.

29. Details regarding venereal disease will be found in Tables III and IV.

Venereal Disease.

The admission rate for India was 511·6 against 522·3 in the previous year. There were 3,162·43 against 3164·84 men constantly sick in hospital from venereal disease, equivalent to over three regiments. The average stay of a case of venereal disease in hospital was 32·10 days, against 31·49, and the total loss of service was about 1,157,449 days against about 1,555,167, men on field service being excluded from the calculation. There were 14 deaths and 479 invalidings directly due to venereal disease, against 15 and 353. The highest ratios were at Ahmedabad, Nowgong and Shajahanpur; and the greatest increase of ratio, increases of more than 150 per thousand of strength, were at Shahjahanpur and Saugor in the Bengal command; at Subathu in the Punjab command; at Bhamo and Madras in the Madras command; and at Taragarh (strength under 100), Ahmedabad, Nasirabad, Neemuch, Hyderabad, Sitabaldi (strength under 100), Deolali, and Purandhur in the Bombay command. The total venereal ratios of the commands may be compared in Table I: as in the previous year, the Bengal command had the highest ratio, and the Punjab the lowest. Only in the Bombay command was there an increase of venereal disease. The chief decrease was in the Punjab, and the decrease in the Bengal command was not much less, while the decrease in Madras was comparatively slight. In 46 stations, against 34, the admission rate from secondary syphilis was over 100 per 1,000 of strength, the highest ratios being those of Poonamallee Depôt, as in 1895, Taragarh (strength under 100) Purandhur, Khandalla Depôt (strength under 100), as in 1895, Deolali Depôt, Ahmedabad, Chaubuttia, as in 1895; and in 22 other stations, against 28, it was over 75 per 1,000. In 1896 the Bengal command had the highest ratio for primary syphilis *plus* ulcer of the penis, and for gonorrhœa; and the Madras command, as usual, the highest ratio for secondary syphilis. For India the ratio of primary syphilis *plus* ulcer of the penis diminished by 12·6, and the ratio of gonorrhœa by 11·0, while the ratio for secondary syphilis increased by 12·8 per 1,000 of strength, the net result being a decrease in total venereal disease, as already mentioned.

In the Bengal command the Rohilkhand district had the highest ratio for syphilis, and the Bandelkhand District the highest for gonorrhœa; while in the Madras command the Madras district had the highest ratio for secondary syphilis.

At Calcutta, Fyzabad, Cawnpore, Chaubuttia, Cherat, Poonamallee, and Belgam the treatment of men as out-patients by hypodermic injection or otherwise appears to have restricted the number admitted and constantly sick. Increase of one or more forms of venereal disease at Meerut, Satara, Purandhur, Mount Abu, and Aden was said to have been largely due to the arrival of men who had contracted the disease elsewhere. Increase at Kurrachee was ascribed to the greater vigour of the men from the diminution of malaria in 1896. Virulent disease is said to have been caused at Kuldunnah by a number of diseased women who followed the troops up from the plains and settled near

the barracks. One reason for the prevalence of the disease at Pallavaram is said to be that the men have little to do, and can easily take a run into Madras city. The decrease at Poona was credited to the fact of the bazars having been placed out of bounds from April to September on account first of small-pox and then of cholera.

To show that the venereal ratios in Table III do not err on the side of excess, it may be mentioned, besides what has already been stated regarding outpatient treatment, that the medical officers of Lucknow, Fyzabad, Fatehgarh, Bareilly, Jhansi, Cherat, Belgam, Bellary, and Kirkee are inclined to believe that the cases of inflammation of the inguinal glands returned by them as non-venereal were in reality probably of venereal origin, though definite proof was wanting.

Table XV-B shows clearly how the arrival year by year of fresh batches of young unmarried men under the short service system has been accompanied by an increase of venereal disease. Since 1878 the number of fresh troops arriving in the country has, as a rule, been much greater than before. The gradual rise in the percentage of men under 25 years of age in the army, and of men under 5 years' Indian service, has been pretty uniform, as has been the well-marked decline in the number of married men; and the same may be said of the gradual rise in the venereal ratio. As youth and recent arrival have become more common in the army, venereal disease and enteric fever have not unnaturally increased in frequency of occurrence.

In paragraph 37, explaining table XVII, are given particulars regarding invaliding for venereal disease.

The following table shows the admission-rate for venereal disease as far back as the records for India as a whole permit. The heading "primary syphilis" includes the local sore throughout:—

Venereal Diseases in the Army of India.

YEARS.	Primary Syphilis.	Secondary Syphilis.	Total Venereal Disease.
1872	61·2	22·4	179·0
1873	53·4	20·4	166·7
1874	68·3	25·2	192·7
1875	67·1	25·1	205·1
1876	59·8	23·9	189·9
1877	65·2	22·1	208·5
1878	95·3	22·0	271·3
1879	79·2	24·5	234·8
1880	87·9	23·1	249·7
1881	92·0	23·1	260·5
1882	87·6	23·2	265·2
1883	87·2	23·5	270·3
1884	90·2	24·4	293·9
1885	122·1	28·7	342·7*
1886	157·9	33·3	389·5*
1887	142·1	29·4	361·2*
1888	142·1	32·4	370·6
1889	225·1	51·2	481·5
1890	220·7	66·3	503·5
1891	159·2	60·0	400·7
1892	161·1	57·8	409·9
1893	213·6	61·6	466·0
1894	248·1	74·6	511·4
1895	239·0	84·9	522·3
1896	226·4	97·7	511·6

* Including troops on active service in Burma.

The figures in the above table show a more or less continuous rise, especially since the end of 1884; and the secondary syphilis ratio of 1895 is the highest on record. This is a condition of things which is sure to tell, when the men have to go on field service.

The following table, the data for which were specially obtained by the Principal Medical Officer, Her Majesty's Forces in India, from the medical officers concerned, and which excludes men on field service or on the march, distinguishes between the number of admissions and the number of individual men admitted into hospital for venereal disease in 1895:—

Average annual strength.	Number of men admitted once only.	Number of men admitted twice but not oftener.	Number of men admitted three times but not oftener.	Number of men admitted four times or oftener.	Total number of men admitted.	Total admissions.
66,954	21,137	4,620	1,235	496	27,488	36,190

The number of individuals treated was about three-fourths the number of admissions; and the former were in the proportion of 410·6 per 1,000 of strength, the latter of 540·5.

For every 10 men in the army affected by venereal disease there were about 14 free from the same; or, in other words, in every 1,000 men 411 men were diseased and 589 exempt.

30. Regarding the occurrence of a number of cases of non-venereal buboes at Calcutta at a time when there was fear of the arrival of plague, the following are the remarks of the medical officer in charge of the station hospital:—

Non-venereal Buboes.

Excluding those cases where there is some cause, such as a boil or other local irritation, there remains a large number of buboes for which no cause can be definitely given; but it is an undoubted fact that in Lower Bengal this disease is very common, where elephantiasis is endemic also. Its site is usually the groin, coming on at times in the course of an attack of remittent fever, at other times with no rise of temperature, lasting a long time, and usually ending with suppuration, some men being three or four months under treatment, and requiring iron and quinine and a good diet with alcohol to overcome the debilitating effects of the disease. Treatment varies much (but the results as regards detention in hospital, etc., appear to be much the same)—pressure, incision, large doses of arsenic combined with pressure, scraping the glands, or removal entirely by dissection. During my absence on leave in September Surgeon-Lieutenant-Colonel Cobb, Superintendent of the General Hospital, and Dr. Simpson, Health Officer of Calcutta, in consequence of the plague at Bombay, and some supposed imported cases among the civil population of Calcutta, were invited to see the cases of inflammation of lymphatic glands in this hospital. They made an examination of the blood of several of these patients, and reported that they found the plague bacillus in one at least. On my return from leave I asked Brigade-Surgeon-Lieutenant-Colonel D. D. Cunningham to examine the blood, etc., of these patients, which he kindly did, with the result that he found no plague bacillus at all, a result I fully expected, as these cases were exactly of the same type which had been occurring, as far as I can gather from this office records, for many years past. I believe Drs. Simpson and Cobb advanced the theory that the Shropshire Light Infantry had brought the disease with them in a quiescent form from Hong Kong after the plague epidemic there in 1893; but the disease had attacked regiments and batteries quartered at Calcutta, which had never served in Hong Kong. With Brigade-Surgeon-Lieutenant-Colonel Cunningham's long study with the microscope and his deep bacteriological researches I accept his report as conclusive, and the cause of this disease has yet to be found. That it is not due to the malarial parasite has been proved by its absence, though sought for separately. A theory I have heard advanced that, although there may be no gonorrhœa or syphilis present, yet from excessive drink and venery the men's urethræ are in a chronic irritable condition, and therefore the glands in the groin are more prone to break down, will not meet the case in my opinion, as drink and venery are constant factors everywhere, but the disease is not met with to such an extent elsewhere.

Neither Dum-Dum nor Barrackpore had ratios half as high as Calcutta from non-venereal bubo. Again, taking the 26 stations with a strength of over 1,000, only 3 had ratios of over 50 per 1,000 of strength,—Fyzabad 68·8 from 69 admissions, Fort William 59·1 from 62, and Mandalay 51·6 from 53. Calcutta therefore stood second. Four had ratios between 40 and 50; seven, ratios between 30 and 40; four, ratios between 20 and 30; and eight, ratios between 10 and 20 per 1,000 of strength. The medical officer at Fyzabad found it “difficult to assign an adequate cause for the prevalence of this affection;” while at Mandalay it was considered due to strains from the increased gymnastic course, etc.

The fact of most importance is that plague did not break out in Calcutta.

31. Information with regard to the deaths from alcoholism in relation to age and service in India will be found in Table

Alcoholism.

XVI; and the numbers admitted and constantly sick in Table LIII. There were 6 deaths, giving a ratio of 0·09 per mille of strength against 12 and 0·17 in 1895. The yearly average number of deaths in the decennium 1881—90 was 10, so that 1896 was below the average.

32. In Table XVI will be found information with regard to suicide in relation to age and to Indian service. In the ten

Suicide.

years 1881—90 there were 269 suicides, or an average of about 27 per annum. There were 22 in 1896, of which 17 were by gunshot, 4 by drowning, and 1 by cut-throat. The distribution of suicides by seasons per cent. was as follows:—

PERIOD.	January to March.	April to June.	July to September.	October to December.	Total.	Total cases.
1881—90 . .	20	26	26	28	100	269
1895 . .	25	17	42	17	100	12
1896 . .	18	36	23	23	100	22

33. As ague and venereal diseases are the chief causes of admission, and

Past and present sickness and mortality.

enteric fever and hepatitis the chief causes of death in the European army of India, a table is here given

to compare the last two lustres in the case of each of the stations that had in 1896 a strength of over 1,000:—

STATIONS.		ADMITTED PER 1,000.		DIED PER 1,000.		STATIONS.		ADMITTED PER 1,000.		DIED PER 1,000.	
		Ague.	Venereal disease.	Enteric fever.	Hepati- tis and abscess of liver.			Ague.	Venereal disease.	Enteric fever.	Hepati- tis and abscess of liver.
Rangoon	{ 1886-90	225'2	492'6	2'66	3'10	Mooltan	{ 1886-90	238'4	530'5	4'25	'95
	{ 1891-95	184'4	543'6	2'45	2'65		{ 1891-95	571'2	460'3	4'11	'46
Fort Dufferin	{ 1888-90	607'5	703'4	2'24	3'58	Kurrachee	{ 1886-90	327'6	259'6	4'91	1'71
	{ 1891-95	478'5	560'1	2'59	1'08		{ 1891-95	924'9	327'2	1'65	'83
Fort William	{ 1886-90	257'9	564'0	2'26	2'26	Agra	{ 1886-90	294'9	499'4	7'27	'59
	{ 1891-95	258'5	602'3	2'00	'91		{ 1891-95	174'3	522'3	7'99	1'87
Fyzabad	{ 1886-90	177'5	471'8	4'48	1'89	Mhow	{ 1886-90	492'4	419'1	7'75	'55
	{ 1891-95	194'5	576'1	3'65	1'46		{ 1891-95	310'8	580'4	5'93	'97
Lucknow	{ 1886-90	132'6	418'7	5'76	1'42	Poona	{ 1886-90	227'8	398'0	3'26	'41
	{ 1891-95	135'5	527'0	8'41	1'70		{ 1891-95	321'9	545'5	6'81	1'18
Allahabad	{ 1886-90	412'7	600'2	6'55	2'87	Belgam	{ 1886-90	72'5	458'5	'61	1'42
	{ 1891-95	310'5	651'0	3'51	1'24		{ 1891-95	69'6	545'2	'38	'94
Bareilly	{ 1886-90	192'9	505'4	11'73	1'42	Secunderabad	{ 1886-90	43'8	387'9	7'53	1'68
	{ 1891-95	107'5	693'3	7'33	1'11		{ 1891-95	111'0	470'8	4'62	'70
Meerut	{ 1886-90	530'1	509'0	5'59	1'00	Colaba	{ 1886-90	233'2	444'9	1'43	'95
	{ 1891-95	474'4	456'0	10'12	'92		{ 1891-95	214'7	519'3	2'11	1'76
Umballa	{ 1886-90	199'9	323'4	2'74	1'52	Bangalore	{ 1886-90	26'2	333'9	4'04	1'04
	{ 1891-95	247'2	407'7	8'11	'72		{ 1891-95	51'8	444'0	2'93	'78
Ferozepore	{ 1886-90	359'0	394'0	4'85	'61	Ranikhet	{ 1886-90	78'1	441'1	7'26	2'13
	{ 1891-95	929'3	345'2	5'00	'77		{ 1891-95	80'6	636'1	3'73	1'64
Sialkot	{ 1886-90	273'5	411'8	11'65	'86	Quetta	{ 1886-90	526'5	203'7	3'53	1'31
	{ 1891-95	598'8	423'8	6'24	'16		{ 1891-95	759'6	308'0	2'81	1'00
Rawalpindi	{ 1886-90	412'9	449'9	5'19	1'08	Wellington	{ 1886-90	170'0	474'2	2'09	2'87
	{ 1891-95	363'0	449'6	8'39	1'01		{ 1891-95	98'5	394'6	2'73	'39
Peshawar	{ 1886-90	641'2	380'4	5'74	'85	Aden	{ 1886-90	191'3	227'0	1'96	1'71
	{ 1891-95	983'7	239'7	10'09	'97		{ 1891-95	819'0	306'7	1'69	1'06

There are 26 stations in the above list ; and 15 of them show an increase in ague, specially Ferozepore, Sialkot, Peshawar, Mooltan, Kurrachee, Secunderabad, and Aden. The prevalence of fever at Aden is under investigation. The venereal ratio of 19 stations rose, the greatest rise being at Ranikhet. The mortality from enteric fever was greater in 11 stations, and less in 15, the greatest increase taking place at Lucknow, Meerut, Umballa, Rawalpindi, Peshawar, and Poona, and the greatest decrease at Ranikhet and Sialkot. Hepatitis mortality fell at 19 stations, and rose at only 7 : the greatest rise was at Agra, Poona, and Bombay, but no less than 9 stations showed large decrease. The general result over the whole is increase of sickness from ague and venereal disease, diminished mortality from enteric fever and hepatitis.

34. In the whole army of India 1,966 men were invalided, or 27·89 per mille of strength, against 1,663 and 23·41 in the preceding year. The ratio for the decennium 1886—95 was 24·34. The proportion of invalids to strength was lowest in the Bombay command, highest in the Madras command. See Table LIII.

	1892.	1893.	1894.	1895.	1896.
India .	40	39	39	33	39

Thirty-nine per cent. of the total number invalided were discharged as unfit for further service. The marginal table shows that this percentage was not at all out of the common.

35. Details regarding the causes of invaliding will be found in Table LIII ; but the following shows the diseases which accounted for not less than 1 per mille of strength :—

INVALIDING RATIOS PER 1,000 OF STRENGTH.									
Syphilis and Gonorrhœa	.	.	.	.	.	.	.	.	6·77
Debility	.	.	.	.	.	.	.	.	2·61
Tubercle of the lungs	.	.	.	.	.	.	.	.	2·06
Malarial fevers	.	.	.	.	.	.	.	.	1·93
Dysentery	.	.	.	.	.	.	.	.	1·15
Valvular disease of the heart	.	.	.	.	.	.	.	.	1·08

36. The ratio of invaliding from mental diseases increased, having been unusually low in the preceding year. There were 39 cases of melancholia, 27 of dementia, and 21 of mania. See Tables XVII and LIII.

RATIOS PER 1,000 OF STRENGTH.									
1886—95	.	.	.	.	.	.	.	.	1·19
1895	.	.	.	.	.	.	.	.	·77
1896	.	.	.	.	.	.	.	.	1·05

37. In Table XVII are to be found the statistics concerning the influence of age and length of Indian service upon invaliding.

The percentage of men who were invalided while under 25 years of age to the whole number invalided was (f) 62, against 66 in 1895. The percentage of men under 25 in the strength of the army was (Table XV) 56, against 55.

Of the total number of men invalided 40 per cent. were (*l*) of less than two years' service, and 85 per cent. were of less than five years' service. With this is to be considered the fact (Table XV) that 82 per cent. of all the men in the strength of the army were of less than five years' service.

The left half of Table XVII gives the relation of invaliding to age, the right half its relation to length or residence in India. The actuals are given under (*v*) and (*i*), and the corresponding ratios per thousand of strength under (*a*) and (*g*); while (*b*) and (*h*) are found for each disease by multiplying the ratio in each age (*a*) or service (*g*) period by 100, and dividing by the sum of the ratios for the particular disease. For example, the .55 under (*a*) opposite dysentery, when multiplied by 100, becomes 55; and 55 divided by 3.54 (*i.e.* .55 *plus* 1.39 *plus* 1.16 *plus* .44) yields 16, the figure which appears opposite dysentery and under (*b*) in the first column. With regard to individual diseases the table may be read as follows. The highest invaliding ratio per 1,000 of strength, (*a*) from venereal disease was in the age-period 20—24, and the relative liability (*b*) for that period was 46 per cent.; the actual number invalided (*c*) for venereal disease in the same age-period was 306; of 100 invalidings in the same age-period 26 were due to venereal disease, a proportion only approached by that of the immediately succeeding age-period; and of the total number invalided for venereal diseases at all ages (*f*) 64 per cent. were in that same age-period. By reading the right half of the table in the same way it will be seen that the residence-period 1—3 years, and especially the first half of the period, had the greatest proportion of invaliding for venereal disease; whereas in 1895 it was more particularly the second half of the period 2—4 years which was so distinguished.

38. The vital statistics of officers will be found in Table XVIII. "B" shows the deaths of *all* officers. The death rate
Officers. for the British army was 14.18, and that for the Indian army 10.76. Both these ratios were higher than in the preceding year, the increase being from pneumonia, cholera, and circulatory diseases. The number of deaths from enteric fever among both British and Indian officers was exactly the same as in 1895. Enteric fever caused more deaths among the British than among the Indian officers, apparently because Indian officers have to serve first with British regiments, and it is known that youthful and newly-arrived men are more liable to take the disease than others.

"A," "C" and "D" show the statistics of such British officers present with their regiments in India, as were treated by medical officers in charge of station hospitals. The invaliding and death rates were higher than for men, the admission rate lower. The admission and death rates from enteric fever exceeded the corresponding ratios among the men. All the admission rates, except those of ague, tubercle of the lungs, pneumonia, and venereal diseases, were higher among officers than among men; as were also the death rates from enteric fever and hepatic abscess. The chief causes of admission among officers were ague and simple continued fever; and among the diseases with raised admission rates were pneumonia, hepatic abscess, influenza, cholera, smallpox, and enteric fever. Enteric fever was the chief cause of death; and among the diseases with increased mortality were cholera, circulatory diseases, hepatic abscess, and enteric fever.

The greatest numbers of cases of enteric fever at individual stations were

8 at Quetta, 6 at Poona, 3 at Meerut, and 3 at Kirkee. No special remarks are made on these cases, except as follows in the case of Meerut :—

As to the R.A. officers, a bacteriological examination of the water supply of the lines, and also the milk from the R.A. dairy was made at Agra, but no enteric microbe was detected. And it would appear that the mess of the R.A. obtained their milk from the bazar, which probably may have been the medium through which the microbe was conveyed. Since then this source of supply has ceased.

39. Sickness and mortality among women rose; and it may be noted that the mortality of 1895 was already higher than that of 1894 :—

Women.

PERIOD.	Average annual strength.	Admission rate per 1,000.	Constantly sick rate per 1,000.	Death rate per 1,000.
1886—95	31,881	815·2	32·1	17·00
1895	3,194	804·3	35·2	17·85
1896	3,254	807·0	37·4	18·44

The chief causes of admission were debility, ague, and the diseases peculiar to women. Among the diseases which caused increased admission were small-pox, influenza, and female diseases; while from enteric fever, malarial fevers, and bowel complaints, admission was lessened. Debility caused nearly 35 per cent. of the total sickness, and ague 16 per cent.

The chief causes of death were enteric fever, child-birth and abortion, and tubercle of the lungs. Among the diseases which gave increased mortality were enteric fever and ague. Mortality from remittent fever, child-birth and abortion, cholera, and pneumonia, was diminished. Enteric fever caused 18 per cent. of the total deaths, puerperal affections 8 per cent., and tubercle of the lungs 7 per cent.

As to both ratios and actuals the commands may be compared with each other by the use of Table XIX.

Table XX shows that there was no cholera among the women; and Table XXI that the only stations where more than 2 cases of enteric fever occurred were Mhow and Rawalpindi. No special explanation of these cases is given by the medical officers; but their remarks on enteric fever in those stations will be found quoted in paragraph 15.

40. That sickness among children in 1896 fell, while mortality rose, is seen in the following table :—

Children.

PERIOD.	Average annual strength.	Admission rate per 1,000.	Constantly sick rate per 1,000.	Death rate per 1,000.
1886—95	59,695	581·8	22·7	46·72
1895	5,699	598·5	26·2	41·24
1896	5,790	573·6	24·9	45·60

The chief causes of admission were ague and respiratory diseases. Among the diseases with raised admission rates were smallpox, measles, and enteric fever; while admission from influenza, cholera, malarial fevers, respiratory diseases, and bowel complaints, was lessened. Ague caused 16 per cent. of

the total sickness, respiratory diseases 13 per cent., and measles and diarrhœa each 7 per cent.

The chief causes of death were convulsions, debility (including immaturity at birth), diarrhœa, and teething. Among the diseases from which there was increased mortality were smallpox, diphtheria, enteric fever, convulsions, respiratory diseases, teething and dysentery. Mortality from remittent fever, cholera, diarrhœa, and debility was diminished. Convulsions caused 14 per cent. of the total deaths, debility nearly 14 per cent., diarrhœa over 12 per cent., and teething nearly 12 per cent.

Table XXIII shows that there were no cases of cholera among children in 1896; and Table XXIV that the only stations with more than 2 cases of enteric fever were Agra, Cherat, Benares, Secunderabad, and Bangalore. No definite special explanation is given of these cases; but extracts from the reports of the medical officers of those stations will be found in paragraph 15.

Table XXV shows that the liability to death was greatest under six months of age, the height of the ratio being to a considerable degree due to cases of immaturity at birth. The chief causes of death at that age were debility, convulsions and diarrhœa. The chief causes of mortality in the succeeding six months of life were teething, convulsions, and diarrhœa.

Papers and Book referred to in Section II.

Abbreviations used below.

- L.=Lancet.
- B. M. J.=British Medical Journal.
- I. M. G.=Indian Medical Gazette.
- I. L.=Indian Lancet.
- J. H. H. R.=Johns Hopkins Hospital Reports.
- M. O. H.=Medical Officer of Health.
- V. J.=Virchow's Jahresbericht.
- Z. H.=Zeitschrift für Hygiene.
- A. H.=Archiv für Hygiene.
- C. B.=Centralblatt für Bakteriologie.
- H. R.=Hygienische Rundschau.
- F. M.=Fortschritte der Medicin.
- D. M. W.=Deutsche Medicinische Wochenschrift.
- B. K. W.=Berliner Klinische Wochenschrift.
- M. M. W.=Münchener Medicinische Wochenschrift.
- C. K. M.=Centralblatt für Klinische Medicin.
- C. I. M.=Centralblatt für Innere Medicin.
- A. P.=Annales de l' Institut Pasteur.
- R. S. M.=Revue des Sciences Médicales.
- S. M.=La Semaine Médicale.
- M. M.=La Médecine Moderne.
- (1) MacCombie in "A System of Medicine" edited by Clifford Allbutt., Vol. II. p. 207
 - (2) Sir Joseph Fayrer in "A System of Medicine" edited by Clifford Allbutt., Vol II. pp. 314, 316, 322, 337, 343, and 350.
 - (3) Wright and Smith in L. of 6th March 1897, p. 656; the same in B. M. J. of 27th March 1897, p. 911; Wright and Semple in B. M. J. of 15th May 1897, p. 1214; Freyer in B. M. J. of 22nd May 1897, p. 1319; Macartney in B. M. J. of 29th May 1897, p. 1384; Welch in B. M. J. of 12th June 1897, p. 1512.
 - (4) R. Pfeiffer and W. Kolle in Z. H. XXI, p. 203 (see also Vols. XVIII, XIX and XX); Gruber and Durham in M. M. W. No. 13 of 1896; References in V. J. XXXI-1-2, pages 243—245 and 261—265; in Clifford Allbutts' System of Medicine, Vol. II, p. 1149; in H. R. Vol. VII; in Lancet Vol. II of 1896, 14th November and 5th and 12th December; in C. B. XXII, 5, p. 138; in R. S. M. XLVIII-2; in Klein's Micro-organisms and Disease; in B. M. J. 14th November 1896.
 - (5) B. M. J. 13th February 1897, p. 414; M. Funck, La Sérothérapie de la fièvre typhoïde, Bruxelles, 1896, Orłowski, Inaugural Dissertation, St. Petersburg, 1897, Steele in B. M. J. of 17th April 1897, all quoted in C. B. XX or XXII; Pressner and Gläser, both quoted in V. J. XXX-2-1, page 16; Pollak, quoted in F. M. 15; Löffler and Abel, C. B. XIX, quoted in I. L. of April 1897; Pfeiffer and Kolle, D. M. W. 1896, No. 46, translated in I. M. G. of February 1897; Pope in B. M. J. of 30th January 1897.
 - (6) Widai in Presse Médicale of 29th July 1896; Widai and Sicard in Annales de l'Institut Pasteur XI, p. 432; Grünbaum in L. of 19th

September 1896; Widal in L. of 14th November 1896; Foerster, a Précis, in F. M. 15, p. 401; References in L. of 5th and 12th and 19th December 1896, 9th January, 16th January, 6th, 13th and 20th February, 6th March, 29th May 1897; in B. M. J. of 17th and 24th October, 14th November, and 5th December 1896, and of 2nd, 16th and 23rd January; of 13th, 20th, and 27th February, of 13th, 20th and 27th March, of 17th April, of 15th, 22nd, and 29th May, of 12th June, of 31st July, of 21st August, of 4th and 18th September 1897; in I. M. G. of September 1897; in Clifford Allbutt's System of Medicine, Vol. II, page 1145; in C. B. Vols. XX, XXI, XXII; in V. J. XXXI-1-2 and XXXI-2-1; in Z. H. XXIV; in H. R. VI and VII; in F. M. Vol. 15; in R. S. M. XLVIII-1, XLVIII-2, XLIX-1, XLIX-2.

- (7) Wright and Semple in B. M. J. of 30th January 1897, and 13th February, and 15th May; a correspondent in B. M. J. of 6th February 1897; Leader in B. M. J. of 13th February 1897; B. M. J. of 9th October 1897; Pfeiffer and Kolle, D. M. W. 1896, No. 46, translated in I. M. G. of February 1897, and abstracted in L. of 23th November 1896, and in C. B. XXI.
- (8) Remlinger and Schneider, A. P. XI, p. 55.
- (9) I. M. G. of September 1897, p. 345.
- (10) Thorne Thorne in L. of 5th December 1896, p. 1617, and Thresh quoted by reviewer in I. M. G. of October 1897.
- (11) Review of Mr. Hankin's Annual Report in B. M. J. of 16th January 1897.
- (12) L'Ingegneria Sanitaria, 1895, Nos. 7 and 8, quoted in C. B. XX, p. 840.
- (13) Freyer quoted in I. L. of May 1897, p. 421.
- (14) E. Hart in B. M. J. of 15th May 1897, p. 1229.
- (15) Z. H. XXIV, p. 403; also quoted in H. R. VII, page 1075; Ranking in I. L. of April 1897, p. 370.
- (16) Sinnhuher, Inaug. Dissert. Königsberg, quoted in B. M. J. of 4th September 1897; also B. M. J. of 25th September 1897; H. R. VII, p. 739; see also Sir Richard Thorne in L. of 6th November 1897, page 1167.
- (17) Lyon Médic. of 21st February 1897, quoted in R. S. M. XLIX-2.
- (18) Thèse de St. Pétersbourg 1896, quoted in R. S. M. XLIX-2.
- (19) Laveran, quoted in L. of 8th May 1897
- (20) B. M. J. of 12th December 1896, p. 1717.
- (21) Griffith in Medical News (New York) of 15th May 1897, quoted in L. of 26th June 1897; and B. M. J. of 9th October 1897.
- (22) Batty Shaw, L. of 28th August 1897, p. 539.
- (23) Achard in S. M. of 1897, p. 85, quoted in C. B. XXI, p. 748.
- (24) Dürck M. M. W. of 1896, No. 36, quoted in C. B. XX, and also in V. J. XXXI-1-2.
- (25) Étienne, quoted in V. J. XXXI-2-1, pp. 13 and 15.
- (26) Charrier et Apert, Presse Méd. of 11th November 1896, quoted in R. S. M. XLIX-2.
- (27) Chambard-Hénon, Lyon Méd. 1897, No. 12, pp. 409-413, quoted in C. B. XXII, p. 26.

- (28) Tichborne in B. M. J. of 22nd May 1897, p. 1285; but see B. M. J. of 6th November 1897, page 1362, and L. of 23rd October 1897, page 1056.
- (29) Dubrulle, quoted in L. of 5th December 1896, p. 1628; Berry, in L. of 5th December 1896, p. 1597; Kelsch and Simmonnin quoted in B. M. J. of 16th October 1897, page 1114.
- (30) Clifford Allbutt's System of Medicine, Vol. I, p. 531.
- (31) H. R. VII, p. 585.
- (32) Whitehead in Davidson's Hygiene and Diseases of Warm Climates, p. 233; see Climo in B. M. J. of 13th November 1897, page 1462.
- (33) Kühnau in B. K. W. No. 30 of 1896, quoted in V. J. XXXI-2-1, p. 11, and in B. M. J. of 17th October 1896; Goodall and others quoted in B. M. J. of 20th February 1897, p. 462, and in L. of same date; Wallace Beatty in B. M. J. of 16th January 1897, p. 148; B. M. J. of 18th September 1897, p. 720; Cheadle in L. of 31st July 1897, p. 254.
- (34) Blumer in J. H. H. R., Vol. V, 1895, quoted in H. R. VII; Klein, 'Micro-organisms and Disease,' 1896, pp. 241-246; Trevelyan in B. M. J. of 22nd May 1897, p. 1287, in Lancet of 29th May 1897, p. 1470; Horton Smith reported in B. M. J. of 13th February 1897, p. 394, also in L. of same date, p. 445, and in C. B. XXI, p. 735.
- (35) Z. H. XXV, p. 534.
- (36) Sanarelli reported in B. M. J. of 3rd July 1897, p. 10.
- (37) Davidson's Hygiene and Diseases of Warm Climates, p. 590.
- (38) "Hospital" review of Annual Report, 1895, of M. O. H. of Haydock, Lancashire, quoted in I. L. of February 1897.
- (39) Max Teich in A. H. XIX and in H. R. V, quoted in R.S. M. XLVIII-1.
- (40) I. L. of May 1897, p. 421, article by Freyer; B. M. J. of 27th March, p. 808, 1897, quoting the Journal Officiel; L. of 5th December 1896, p. 1628; Abba in L'Ingegneria Sanitaria, 1895, Nos. 7-8, quoted in C. B. XX, p. 840; S. M. 1897, Annales XXXVIII, quoted in H. R. VII, p. 583. The last authority is the one quoted in the text.
- (41) C. B. XXI, pp. 88, 151, 194, 234, 252.
- (42) Kartulis in 'Spec. Pathologie and Therapie' von Nothnagel, Vol. V, quoted in F. M. 15, page 319.
- (43) I. M. G. of May 1897, p. 172.
- (44) Buchanan in I. M. G. of June 1897, p. 211; Galli-Valerio in C. B. XX, p. 901. Celli in Annali d'Igiene Sperimentale VI, p. 204, quoted in C. B. XXI, p. 810; Pottien in H. R. VII, pp. 644 and 654; Davidson in Davidson's Hygiene and Diseases of Warm Climates; Osler in Clifford Allbutt's System of Medicine, Vol II.
- (45) Revue de Médecine quoted in I. L. of January 1897, p. 38.
- (46) Peyrot et Roger in M. M. 1896, p. 232, quoted in C. B. XX, p. 815; Councilman and Lafleur, quoted by Janowski in C. B. XXI, p. 155; Clifford Allbutt's System of Medicine, Vol. II, p. 463; F. M. 15, p. 175; Fajardo C. B. XIX, and H. R. VII, p. 459; Davidson's Hygiene and Diseases of Warm Climates, articles by Fayrer and Cayley.
- (47) Vantalon quoted in L. of 3rd July 1897, p. 48.
- (48) Both Fayrer and Cayley in Davidson's Hygiene and Diseases of Warm Climates for the first reference, Cayley only for the second.

SECTION III.

NATIVE ARMY OF INDIA.

41. Owing, no doubt, to the dry and non-malarious character of the year, there was less sickness and mortality than in 1895, even though influenza and cholera were more prevalent :—

YEAR.	Average strength.	RATIO PER 1,000.							
		Admissions into hospital.	Constantly sick.	DEATHS FROM					Mortality, including absent deaths.
				Cholera.	Remittent Fever.	Pneumonia.	Dysentery.	All causes.	
1886—95 . .	123,302	976	34	1·32	1·34	3·02	·78	12·43	16·72
1895 . .	129,655	794	30	·41	1·20	4·20	·53	11·60	15·71
1896 . .	128,286	763	29	·69	1·07	3·14	·42	10·20	12·57

The chief cause of admission was ague. Among the diseases with raised admission rates were influenza, cholera, small-pox, and venereal disease. Among those with lessened rates were enteric fever, ague, remittent fever, simple continued fever, pneumonia, other respiratory diseases, dysentery, and diarrhœa. Ague caused 36 per cent. of the total admissions.

The chief causes of death were pneumonia and remittent fever. Among the diseases which caused increased mortality were cholera and small-pox. Among those from which mortality was lessened were respiratory diseases, bowel complaints, and fevers. Pneumonia caused 31 per cent. of the total deaths, and remittent fever between 10 and 11 per cent.

The total number invalided for discharge (Table XXXIX) was 1,437, and the chief causes of invaliding were debility, venereal diseases, and respiratory diseases.

If Table XXVI be compared with Table I, it will be seen that the native soldier suffered less from influenza, small-pox, enteric fever, simple continued fever, tubercle of the lungs, diarrhœa, hepatic affections, and venereal diseases, and more from ague, remittent fever, respiratory diseases, dysentery, and scurvy than his European comrade. These relations are usual, except with regard to influenza and small-pox. The comparison may be carried into further detail with the aid of Table LIII. See also Section IV, paragraph 101.

42. Of the commands the Punjab (Table XXVI) was the most unhealthy, but it was more healthy than in the previous year. Its death ratios from cholera, small-pox, and hepatic abscess were raised, while those from enteric fever, ague, remittent fever, pneumonia, other respiratory diseases, dysentery, diarrhœa, and debility were

lowered. The Punjab had the highest death-rate, Madras the highest constantly-sick rate, and Bombay the highest admission-rate. The highest ratios of mortality from remittent fever, pneumonia, and other respiratory diseases, and the lowest from cholera, were in the Punjab; the highest from ague, dysentery, and debility, and the lowest from remittent fever, pneumonia, and other respiratory diseases, in Madras; the highest from small-pox, diarrhœa, and hepatic abscess, in Bombay.

43. The following table shows the statistics of all the native troops serving in Burma and the Andamans. Of these troops in 1896 about 98 per cent. belonged to the Madras army:—

YEAR.	Average annual strength present.	RATIO PER 1,000.						
		Admissions into hospital.	Constantly sick.	DEATHS FROM				
				Cholera.	Remittent fever.	Pneumonia.	Dysentery.	All causes.
1891	11,401	1,676	76	1'75	2'98	1'84	4'03	36'31
1892	11,333	1,349	57	2'29	2'29	2'29	3'09	29'12
1893	10,326	1,092	48	'87	1'45	2'42	1'30	19'85
1894	10,500	809	35	1'43	'95	1'14	1'43	13'90
1895	9,952	827	37	'80	'50	'80	'80	10'55
1896	9,605	830	38	...	'94	'73	1'35	9'58

The table shows that the death-rate has been reduced year by year. Sickness was not high, though higher than in the previous year. A comparison of the health of the troops in the Burma Coast group of stations with that of the troops in the Burma Inland group may be made by the use of Table XXVII.

44. Information regarding changes made in the map and in the boundaries of groups will be found in paragraph 78, Section IV. The table which follows shows that both for the decennium and in 1896 Groups II and III had high constantly-sick ratios; and that both for the decennium and in 1896 mortality from respiratory diseases was greatest in the Indus Valley:—

RATIO PER 1,000 OF STRENGTH.													
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
		Burma Coast and Bay Islands.	Burma Inland.	Assam.	Bengal and Orissa.	Gangetic Plain and Chutia-Nagpur.	Upper Sub-Himalayan.	N.W. Frontier, Indus Valley and North Western Rajputana.	South Eastern Rajputana, Central India and Gujara- rat.	Deccan.	Western Coast.	Southern India.	Hill Stations.
1886—1895	Constantly sick-rate.	48'9	65'8	62'8	48'2	28'9	31'6	37'1	27'6	28'3	23'4	26'2	42'3
	Death rates from—												
	Cholera . . . . .	...	4'47	'70	'59	1'14	'82	'80	'69	'87	'14	1'31	1'29
	Respiratory diseases	1'43	2'35	2'43	1'25	1'57	4'56	6'79	2'69	1'60	1'08	1'56	6'43
1895	Constantly sick-rate	24'4	42'9	39'0	37'0	23'1	29'9	35'0	24'4	26'8	29'8	26'1	36'0
	Death rates from—												
	Cholera . . . . .	...	1'20	...	...	1'69	...	...	'69	'77	...	'99	...
	Respiratory diseases	1'87	'75	2'88	'99	1'23	4'57	12'16	3'21	2'17	'65	1'32	5'78
1896	Constantly sick-rate	19'6	45'9	44'5	36'1	24'8	24'2	27'4	26'0	26'2	27'3	28'5	38'6
	Death rates from—												
	Cholera . . . . .	...	...	14'09	'64	'29	'56	'07	'98	'98	.	1'37	...
	Respiratory diseases	'43	1'05	'56	2'57	'59	4'70	10'49	3'26	2'84	1'10	1'49	3'87

In Table XXVII it may be seen that Burma Coast had the lowest admis-
sion ratios from malarial fevers and respiratory diseases; Burma Inland the

highest from ague; Assam the highest from cholera, enteric fever, dysentery, diarrhœa, and venereal disease; Bengal-Orissa the highest from simple continued fever; Indus Valley the highest from pneumonia; Western Coast the highest from remittent fever and hepatic affections; Southern India the highest from smallpox, and the lowest from dysentery; and the Hills the highest from influenza and from respiratory diseases other than pneumonia. The presence of enteric fever and the prevalence of venereal disease in Assam is due to the number of Gurkha troops there.

45. Of the large stations throughout India with a strength of not less than 1,000 the following returned the highest death rates:—

STATIONS.	Average annual strength for 1896.	RATIO PER 1,000 OF STRENGTH.		CHIEF CAUSES OF MORTALITY PER 1,000 IN 1896.								Total number of deaths in 1896.
		1896.	1895.	Cholera.	Ague.	Remittent fever.	Dysentery.	Diarrhœa.	Pneumonia.	Tubercle of the lungs.	Anæmia and Debility.	
Manipur	1,009	37'66	23'16	24'78	...	2'97	...	'99	'99	1'98	...	38
Nowshera	1,112	37'77	20'04	...	'90	1'80	...	...	25'18	...	...	42
Peshawar	2,812	21'34	15'11	...	'71	1'78	'36	...	8'53	'36	...	60
Kohat	2,442	19'25	22'67	'41	'41	2'46	...	...	12'29	'82	...	47
Dera Ismail Khan	1,407	19'19	19'13	...	...	1'42	'71	...	12'08	...	...	27

All appear in Table XXX. The principal cause of death at Manipur was cholera, at the four frontier stations pneumonia. The mortality ratios of all stations will be found in Table XXVIII.

46. Details regarding the health of individual regiments are to be found in Table XXXIX, and some explanation with regard to the most unhealthy regiments is given in Table XXX. As in the preceding year, Hindu had a much higher mortality than Mussulman soldiers (end of Table XXXIX). The 44th Gurkha Rifles at Manipur was sharply visited by an outbreak of cholera which began in the civil population, and was ascribed to water-infection. The 3rd Sikhs at Wana and Dera Ismail Khan, the 8th Bengal Infantry at Nowgong, and the 37th Dogras at Sialkot had most admissions from pneumonia, and the 40th Pathans at Fort Sandeman and the 2nd Baluch Battalion at Loralai most admissions from scurvy.

47. Attention having been directed to the health statistics of India, of the commands, of the geographical groups, of stations, and of regiments, it will be convenient now to consider some of the chief diseases.

48. Influenza increased, there having been 1,369 cases, 10·7 per mille of strength, against 910 cases, 7·0 per mille of strength in the preceding year. There was more influenza in 1896 than there had been since 1892. The geographical groups affected both in 1895 and in 1896 were IV, V, VI, VII, VIII, IX, XI, XII; II and III were newly attacked in 1896; X escaped in both years, while I has had no cases since 1892. In proportion to strength the Hills was, as in the previous year, the group most severely affected; whilst the greatest number of cases occurred, as in 1895, in the Hills and Indus Valley. The relations of the disease to stations and months may be studied in Table XXXI. The following table shows the monthly progress of the disease since its beginning in 1890. The maximum

month varied from year to year, but over the period as a whole most cases occurred in April and March, and fewest in October and September:—

YEARS.	NUMBER OF ADMISSIONS INTO HOSPITAL EACH MONTH.												TOTAL.	Admitted per 1,000 of strength.	Died per 1,000 of strength.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.			
1890 . .	1	8	2,460	5,118	492	82	55	...	...	...	1	...	8,217	64·3	·41
1891 . .	...	...	1	...	105	259	123	106	51	22	17	215	899	7·0	·09
1892 . .	681	371	511	149	40	5	5	7	...	1	7	18	1,795	14·1	·15
1893 . .	8	28	65	99	95	13	9	7	...	3	53	404	784	6·2	·20
1894 . .	159	203	232	384	143	11	5	...	1	1	5	11	1,155	9·0	·16
1895 . .	26	28	53	76	110	25	60	57	19	17	31	408	910	7·0	·08
1896 . .	372	196	397	35	22	11	33	57	53	39	82	72	1,369	10·7	·30
TOTAL .	1,247	834	3,719	5,861	1,007	406	290	234	124	83	196	1,128	15,129	16·9	·20

The greatest number of cases occurred at Quetta, Dharmsala, and Edwardesabad. At the first named station the disease was present during the last six months of the year, while in the other two it was confined to the first four and first two months of the year respectively. The following table shews that in 1896, as in the previous year, the native troops were somewhat less severely affected than the European troops, much less severely than the prisoners:—

YEARS.	PER 1,000 OF AVERAGE STRENGTH.											
	INFLUENZA.						PNEUMONIA.					
	European Troops.		Native Troops.		Prisoners.		European Troops.		Native Troops.		Prisoners.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
1890 . . .	33·4	·03	64·3	·41	78·6	·67	4·6	·90	16·7	3·96	18·5	5·71
1891 . . .	5·5	·04	7·0	·09	19·0	·29	2·6	·54	11·6	2·53	17·0	4·87
1892 . . .	12·7	·01	14·1	·15	56·7	1·26	3·5	·62	13·6	3·26	18·4	5·56
1893 . . .	·3	...	6·2	·20	6·4	·09	3·4	·70	12·3	2·75	15·9	3·95
1894 . . .	3·4	·01	9·0	·16	41·0	·43	3·7	·75	12·9	2·87	15·4	4·31
1895 . . .	7·8	·03	7·0	·08	20·3	·15	4·4	·51	17·5	4·20	16·4	4·00
1896 . . .	11·5	·11	10·7	·30	37·6	·60	5·2	·64	15·3	3·14	19·1	4·34

It also shows the relation of the pneumonia death-rate year by year to the the admission rate from influenza. In comparing 1896 with 1895 from this table it must be remembered that the unusual height of the death-rate from pneumonia in 1895 was the result of field service in Waziristan and Chitral.

49. The cholera of the native army of India may be studied in Table XXXII. There were 132 cases with 88 deaths against 75 cases with 53 deaths in the preceding year. The admission rate per mille was 1·0 against 0·6, and the death-rate 0·69 against 0·41. Cases occurred in every month except January and February, the maximum months being June-August. The greatest number of cases occurred in Assam and the Deccan. Among stations Manipur had most cases, namely, 37, the greatest number at any other station being ten. The regiment affected at Manipur was the 44th Gurkha Rifles, the explosion of the disease being attributed to pollution of the river by the dejecta of cases in the civil population. The circumstances attending the chief outbreaks will be discussed, so far

as they are of etiological importance, in Section VI. The following table gives information regarding the cholera of the period 1886—95 :—

—	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	RATIO PER 1,000.	
														Ad- mitted	Died.
European troops	6	4	22	76	126	67	285	336	177	91	65	25	1,280	1'9	1'33
Native troops .	72	152	52	305	401	220	490	313	227	140	169	112	2,653	2'2	1'32
Prisoners .	263	83	241	437	352	334	1,115	873	269	146	311	184	4,608	4'8	2'75

In the period as a whole the European troops suffered less than the native troops, and both less than the prisoners. In each of the 10 years, except 1890, the prisoners were most affected, and in a slight majority of years the European troops least. The table also shows that August and July were the maximum months for European troops, July and May for native troops, and July and August for prisoners. From the next table it may be seen that European troops had their highest ratio for the ten-year period in Gangetic Plain, native troops in Burma Inland, and prisoners in Southern India, Assam, and Burma Inland. Only in Gangetic Plain and Indus Valley had the European soldiers, and only in the Hills had the native soldiers, a higher ratio than the other two classes of men. In all other groups prisoners had the highest ratio :—

	BURMA COAST AND BAY ISLANDS.		BURMA IN- LAND.		ASSAM.		BENGAL AND ORISSA.		GANGETIC PLAIN AND CHUTIA NAGPUR.		UPPER SUB- HIMALAYAN.		N. W. FRONTIER, INDUS VALLEY, AND NORTH- WESTERN RAJPUTANA.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
European Troops. .	2	21	23	171	..	..	10	78	63	431	17	114	18	113
Native troops . .	..	..	65	447	11	70	8	59	19	114	14	82	13	80
Prisoners . . .	40	257	86	516	101	546	55	349	48	271	28	156	4	30

	SOUTH-EAST RAJPUTANA, CENTRAL INDIA, AND GUJARAT.		DECCAN.		WESTERN COAST.		SOUTHERN INDIA.		HILL STATIONS.		HILL CON- VALESCENT DEPOTS AND SANITARIA.		INDIA.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
European Troops. .	22	165	10	74	1	..	3	30	9	61	14	78	19	133
Native troops . .	11	69	15	87	3	14	24	131	22	129	..	..	22	132
Prisoners . . .	30	168	51	320	35	163	119	566	20	129	..	..	48	275

In the ten-year period, 1886—95, Rangoon had its maximum in October ; Fort William in March ; Lucknow, Peshawar, and Secunderabad in July ; Rawalpindi, Mhow, and Poona in August ; and Meerut in September. The numbers, however, are but small.

The maximum cholera among European troops in the Gangetic Plain was in July 1894 ; among native troops in Burma Inland in 1888, while the country was still unsettled ; among prisoners in Southern India, Assam, and Burma Inland in 1892.

In cholera seasons great care should be taken with the preliminary observa-
tion of new prisoners before they are allowed to mix with the inmates of a jail.

Failure to carry this out with sufficient strictness may account for the fact noted above that prisoners suffer from cholera more than soldiers do.

50. The distribution of smallpox by stations and regiments is given in Tables XXIX and XXXIX. There were 148 cases with 13 deaths against 71 cases with 8 deaths in the preceding year. The admission ratio per mille was 1·2 against 0·5, and the death ratio 0·10 against 0·06. In Southern India the cases bore the highest proportion to strength. The greatest number of cases occurred in Deccan, Central India, Upper Sub-Himalyan, and Southern India. Among stations Belgam and Bangalore had the most cases, the highest number at any one station being 16.

Information regarding the smallpox of the period 1886—95 is furnished in the following tables :—

—	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	RATIO PER 1,000.	
														Ad- mitted	Died.
European troops	54	74	74	83	85	29	17	6	3	5	11	18	459	·7	·07
Native troops	120	149	171	139	71	44	23	10	5	24	39	58	853	·7	·05
Prisoners	58	120	157	93	67	31	7	13	3	20	27	47	643	·7	·12

The admission ratios of the three bodies of men for the period are identical, and in all three the maximum of the disease was in months of the first-half of the year. The highest ratio of European troops for the ten-year period, as may be seen from the next table, was in Gangetic Plain and Indus Valley ; of native troops in the Deccan ; and of prisoners in Burma Inland and Western Coast. Only in Burma Coast, Assam, and the Deccan, had the native troops higher ratios than either the prisoners or the European troops. In four of the other groups European troops had the highest ratio, and in five, prisoners :—

	BURMA COAST AND BAY ISLANDS.		BURMA IN- LAND.		ASSAM.		BENGAL AND ORISSA.		GANGETIC PLAIN AND CHUTIA NAGPUR.		UPPER SUB- HIMALAYAN.		N. W. FRON- TIER, INDUS VALLEY, AND NORTH- WESTERN RAJPUTANA.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
European Troops	··	··	·6	·19	··	··	··	··	1·2	·13	·6	·05	1·2	·13
Native troops	·4	·05	·6	·10	·4	·13	·2	··	·2	·02	·5	·06	·5	·08
Prisoners	·1	·02	3·2	1·31	·2	·09	·6	·18	·7	·04	·2	·02	1·6	·11

	SOUTH-EAST RAJPUTANA, CENTRAL INDIA, AND GUJARAT.		DECCAN.		WESTERN COAST.		SOUTHERN INDIA.		HILL STATIONS.		HILL CON- VALESCENT DEPOTS AND SANITARIA.		INDIA.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
European troops	1·1	·11	1·0	·09	·3	··	·7	·08	·1	··	·2	··	·7	·07
Native troops	·8	·c6	1·7	·02	·6	·03	·6	·04	·4	·03	··	··	·7	·05
Prisoners	·4	·07	·6	·07	2·5	·60	·6	·12	·7	··	··	··	·7	·12

The smallpox admission ratio of native troops of 1896 was highest in the Madras Command, and lowest in the Hyderabad Contingent. The case-mortality for India was 7·9 per cent.

In some cases the state of vaccination of those who suffered or died from smallpox is noted. The following are the more interesting points:—

IMPORTANCE OF REVACCINATION.

4th British Cavalry, Cawnpore.—Lieut. E. died of confluent smallpox of very severe type. He had refused to be revaccinated shortly before he was attacked, at the time when all the other British officers were vaccinated. He showed two marks, the result of vaccination in childhood.

GREAT SUSCEPTIBILITY.

1st Bengal Infantry, Jhansi.—Two men were attacked, and both did well. The first case had been vaccinated three times, in infancy, in 1887, and in 1888, and each time it took. He bore vaccination marks on each arm, and also marks of smallpox, which had occurred in childhood. The second case had been vaccinated as a recruit and also a fortnight before his present illness. He bore marks of an attack of smallpox in childhood.

11th Bengal Infantry, Doranda.—A mild case occurred in a man. He had had smallpox in infancy, and had plenty of well-marked pitted scars. He had also been vaccinated about 12 years ago.

1st Bombay Light Infantry, Neemuch.—Three men and one boy were attacked. All the men had had smallpox previously, and two of them had been vaccinated. The boy had doubtful marks of vaccination. All recovered.

14th Bombay Infantry, Poona.—One man, one woman, and one child were attacked, and all died. The man was attacked while a patient in hospital. He had had a previous attack of smallpox, and bore two successful marks of vaccination on each arm.

23rd Bombay Infantry, Neemuch.—The man attacked had six good vaccination marks done in childhood. He recovered.

UNSUCCESSFUL REVACCINATION DOES NOT NECESSARILY MEAN IMMUNITY.

14th Sikhs, Ferozepore.—One officer bore satisfactory marks of vaccination in infancy, and had been revaccinated in adult life without result. The other case was that of a band boy, who states that he was vaccinated in infancy, but bears no marks. The officer had severe confluent smallpox, but recovered with pitting. The boy recovered with slight scarring.

MILD SMALLPOX IN THE UNVACCINATED.

19th British Lancers, Meean, Meer.—One recruit contracted the disease in his village. He had not been previously vaccinated, but his case was a mild one.

23rd Bombay Infantry, Neemuch.—An unvaccinated child was attacked, but recovered.

SEVERE SMALLPOX IN THE UNVACCINATED.

36th Sikhs, Peshawar.—One recruit aged 21 had never been vaccinated, and the other aged 18 bore doubtful marks of vaccination in childhood. Both had severe confluent smallpox, and both died.

SEVERE SMALLPOX IN THE VACCINATED.

Queen's Own Corps of Guides, Mardan.—One man who had good marks suffered from a very severe attack of confluent smallpox. He recovered.

8th Bombay Infantry, Baroda.—One of the two cases was severe and confluent but bore satisfactory marks of vaccination. He recovered.

16th Bombay Infantry, Quetta.—There were three cases with one death. All had satisfactory marks of vaccination.

20th Bombay Infantry, Mhow.—Two children died, one of whom bore satisfactory marks of vaccination.

CHILD ATTACKED SIX DAYS AFTER VACCINATION.

3rd Bombay Light Infantry, Satara.—Three men, three women, and one child were attacked. The men and women all bore satisfactory marks of vaccination. The child is shown to have been attacked 6 days after apparently successful vaccination. All were slight cases, and all recovered.

51. To ague was due 36 per cent. of the sickness of the native army.

Ague. Remittent fever.
Simple continued fever.

The admission rate from ague fell in 1896. In Table XXVII it may be seen that in 1896, as in 1895,

Burma Inland was the most malarious group, and Burma Coast the least mala-

rious ; and in Table XXXV that the most malarious months were September and October, and the least malarious month February. Remittent fever caused over 10 per cent. of the total deaths, and prevailed most in September and October. The proportion of cases returned as simple continued fever is much lower in the native army than in the European ; but it is pretty certain that many cases, which in the latter would be so returned, are in the former called ague. The simple continued fever of the native army was most prevalent in April—June, and in the same period the greatest number of enteric fever cases were diagnosed.

Several medical officers mention the benefit derived by the regiments in their medical charge from the prophylactic issue of quinine and other anti periodics ; and there is no doubt that the regular issue of the same is a practice which ought to be strongly encouraged throughout the army. The medical officer of the 27th Bombay Infantry at Hyderabad (Sind) states that ague was much increased by the water having been allowed to run into the canals and channels in and around Hyderabad this year.

52. The ratio of admission from enteric fever in the native army in 1896 was 0·1 per mille of strength, and the death rate 0·04, against 0·2 and 0·07 in the previous year. Enteric fever. The corresponding decennial ratios of 1886—95 are 0·2 and 0·08. The following table shows that the ratios for European troops are very unlike those for native troops and prisoners :—

	1886—95.		1896.	
	Admissions.	Deaths.	Admissions.	Deaths.
European troops . . .	19·6	5·28	25·5	6·31
Native troops . . .	·2	·08	·1	·04
Jail population . . .	·3	·12	·2	·06

Post-mortems are rarely obtainable in the case of native soldiers ; but among prisoners nearly every fatal case of disease is subjected to *post-mortem* examination. Under these circumstances, as has been repeatedly pointed out, the fact that the ratios of prisoners and sepoys for a ten-year period are almost identical appears to show that the native troops really suffer less than the European ; though it does not show that there may not be more cases of enteric fever among both native troops and prisoners than are at present diagnosed during life or after death. Again, the following table shows that the total fever mortality in the two armies is not the same in amount, which indicates that the difference is not altogether a mere matter of diagnosis :—

CAUSES OF DEATH.	DIED PER 1,000 OF AVERAGE STRENGTH.		RELATIVE LIABILITY IN PERCENTAGES.			PERCENTAGE IN DEATHS FROM ALL CAUSES.	
	European troops.	Native troops.	European troops.	Native troops.	Total =100.	European troops.	Native troops.
Ague . . .	·10	·48	17	83	100	·7	4·7
Remittent fever . . .	·40	1·07	27	73	100	2·7	10·5
Simple continued fever . . .	...	·03	...	100	100	...	·3
Enteric fever . . .	6·31	·04	99	1	100	42·5	·4
TOTAL .	6·81	1·62	81	19	100	45·9	15·9

The total fever mortality among the native troops in 1896 was to the total fever mortality among European troops as 1 : 4·2. For the period 1886—95 the corresponding ratio was 1 : 2·6 and for 1895 it was 1 : 3·9. Again, among the European troops, 46 per cent. of all deaths in 1896 were from fevers; only 16 per cent. among native troops. See also Section IV, paragraph 101. As the death-rate of European troops from enteric fever is nearly four times as great as that of native troops from all kinds of fever, it appears, whatever may be the nature of the remittent and continued fevers from which native soldiers die, that native soldiers and prisoners are less liable to enteric fever than European soldiers are.

The question of the immunity, or apparent immunity, of natives of India as regards enteric fever, has been frequently discussed in former reports. At page 62 of the report for 1895, and at page 33 of that for 1890, was noticed the suggestion that the modern British soldier has become very liable to contract the disease in badly sanitated India, because in now purer England he has not had the opportunity of going through the disease at an earlier age. The same view has since been led up to in a different way by Surgeon-Major S. F. Freyer, Army Medical Staff,⁽¹⁾ who by the use of Widal's serum test thinks he has discovered that nearly all natives of India above the age of early childhood have already passed through the disease. That they have may or may not be true, and it has been mentioned in these reports that some medical officers in India believe it to be true; but Surgeon-Major Freyer's intended proof cannot be accepted without further confirmation, especially as his own paper shows that he did not realise the necessity of minute care and strictness in the experiments. His results were criticised from this point of view by Mr. A. M. Gossage,⁽²⁾ and the references given here⁽³⁾ will show that the latter was justified in his criticism. The danger of error arises from the fact that the reaction is not only qualitative but also a quantitative one, there being a small amount of agglutinative power in normal sera, so that certain limits of dilution and time have to be observed. Again, cultivations which are not quite fresh often begin to a certain degree to clump spontaneously, and this danger has to be guarded against by microscopic examination of the culture before use. It has also been found that the composition, reaction, and temperature of the medium in which the cultivation is made have something to do with the readiness with which agglutination may be displayed. Therefore, before undertaking the experimental diagnosis, it is necessary to make sure of the genuineness, purity, freshness, activity, virulence, and freedom from clumps of the culture; and thereafter to find out the relation, within the limits of the intended dilution and time-allowance, of these genuine bacilli to a serum known to be normal. It is evident from what has been said that an inexperienced experimenter is in most danger of getting an erroneous *positive* result; and that the test is not one to be trifled with by the general practitioner, but to be entrusted only to the hands of the bacteriological expert, who realises the sources of fallacy to be avoided. As Professor Sheridan Delépine says⁽⁴⁾ :—

The simplicity of the method may induce clinicians to use it at the bedside. I doubt whether this would be a wise application. The whole method depends for its success on the purity of the cultures, on their being in an active state of growth, on their being free from clumps, and on the observations being made by men to whom bacteriological observations are so familiar as to prevent those many slight sources of inaccuracy which attend experiments made by those who are not in constant training. The very simplicity of the method is for these reasons a source of danger, and I should not be surprised if the generalisation of the method were attended by disbelief in its value, if it is to be used

indiscriminately by anybody who happens to possess a tube labelled “typhoid bacillus” and a platinum loop.

In the whole native army of India 19 cases with 5 deaths were returned as enteric fever, as against 22 cases with 9 deaths in 1895. In only three cases were *post-mortems* obtained; and the lesions described support the diagnosis. Regarding the three cases that occurred at Manipur, the medical officer of the 44th Gurkhas says :—

The three cases occurred soon after each other. They came from different companies; two from one and one from another. The source of contagion was not traced; probably the river water was to blame, as it was at the beginning of the rains. There is always a lot of simple continued fever about that time of year; and I strongly suspect that at least some of these are cases of enteric fever in which the diarrhoea is absent or very slight. All are treated as if they were.

The following table compares the ratios from enteric fever of the Gurkha regiments with those of the commands to which they belonged. The differences were not so great as in 1895 :—

YEAR.	ADMISSIONS.		DEATHS.	
	Bengal and Punjab Commands.	Gurkha Regiments.	Bengal and Punjab Commands.	Gurkha Regiments.
1896	·2	·4	·06	·10

Experience shows that in all cases of remitting fever occurring in Gurkhas the possibility of the presence of tuberculosis must be borne in mind. The medical officer of the 2-2nd Gurkhas at Dehra Dun writes somewhat to the following effect :—

In some cases of fever where a Gurkha has remained in hospital for some weeks without any benefit, signs of tuberculous consolidation eventually made their appearanceSince my connexion with the Gurkha regiment I have learned always to carefully examine the chest of any case of “fever” resisting the effect of drugs.

53. During the year under review there were no cases of dengue, typhus, rubella, cerebro-spinal fever, or scarlatina. Measles occurred mostly in the Punjab and Bengal commands, 263 cases in all, against 109 in the previous year; including 53 in the 1-5th Gurkhas, 41 in the 42nd Gurkhas, 31 in the 9th Gurkha Rifles, 21 in the 37th Dogras, and 17 in the 2-5th Gurkhas. There were 62 cases of erysipelas, mostly in the Punjab and Bombay commands, but not more than 5 cases in any one regiment. Of mumps there occurred 1,081 cases, against 1,644 in the previous year, especially in the Gurkha regiments, the maximum numbers being 151 in the 1-1st Gurkhas at Dharmsala, and 100 in the 18th Bengal Infantry at Calcutta.

Two cases of plague with one death occurred in the 22nd Bombay Infantry at Bombay. The medical officer says :—

The cause of the seizure could not be traced. The plague had been prevalent in the town, and not far from the lines. The glands in the right groin were affected in the one, and those in the left axilla in the other case. The former case recovered. It was the first case that occurred in the regiment, and plague bacilli were found in the blood.

54. The medical officer of the 17th Bengal Infantry at Silchar notices the difficulty and interest which the presence of the plague in India adds to the occurrence of cases of non-venereal bubo, especially when the buboes are accompanied with fever.

Non-venereal Buboes.

There seem, however, not to have been many cases in any one regiment in India; and the course of time appears to have proved that they had no connexion with plague. This subject is also referred to in paragraph 30 of Section II.

55. The ratio of scurvy admission rose from 4·0 in 1895 to 4·1 in 1896.

Scurvy.

There were in all 529 admissions, against 520 in the preceding year; 36 per cent. in the Punjab Command, and 32 per cent. in the Bombay Command. Twenty-two per cent. occurred in the Hills, principally the hills of the north-west frontier, and 11 per cent. in the Indus Valley. Again, 11 per cent. of the total occurred at Fort Sandeman, 5 per cent. at Loralai, and 3 per cent. at Aden. Ten deaths in all were directly attributed to scurvy, against four in 1895. The regiments on the frontier, where vegetables are grown with difficulty, or are hard to procure, were most affected by scurvy. But the amount of scurvy existing is far greater than the amount returned, and medical officers who have not returned many cases of scurvy frequently refer to the existence of a more or less widespread scorbutic taint in their regiments. This fact shows that however much attention may have already been devoted to the matter the measures taken are not yet sufficient. No pains should be spared to eradicate scurvy completely, either by securing an adequate supply of good vegetables, or by increasing the amount of the ordinary diet and providing variety in the ingredients; because it underlies a vast amount of sickness that does not directly bear its name. The medical officer of the 3rd Sikhs at Abbottabad says:—

Only three were admitted for scurvy, but a large number of men admitted for other diseases showed signs of scurvy at the same time. This taint when occurring in a case of pneumonia invariably made the prognosis grave.

From Miranshah the medical officer of the 1st Sikhs writes:—

There were only 8 admissions from scurvy, yet it complicated and modified all other diseases during its continuance, preventing rapid recovery from trifling ailments, and inducing debility generally. It was due to the want of fresh vegetables and the sameness of the food.

The medical officer of the 3rd Peshawar Mountain Battery reports:—

The government ration does not give variety, and has too little vegetable, and vegetables cannot be grown in December, January, and February. A double supply of vegetables daily should be issued to both men and followers in these months.

The following table contains information regarding scurvy in the ten-year period, 1886—95:—

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	RATIO PER 1,000.	
														Ad- mitted.	Died.
European troops	20	34	35	42	50	55	88	55	37	28	24	17	485	·7	...
Native troops	321	254	312	259	306	238	260	259	326	354	316	269	3,474	2·8	·06
Prisoners	158	65	89	103	165	171	183	393	281	476	258	273	2,615	2·7	·09

The proportion of scurvy in the European troops was very much less than in the other two bodies of men; and the proportion in native troops and prisoners was nearly equal. Among European troops the maximum was reached

in July ; among native troops in October and September ; and among prisoners in October. Now October is usually the most malarious month ; and there are not wanting those who maintain that much of the so-called scurvy of the natives of India would more properly be entitled malarial cachexia. But probably the cases which give rise to dispute are combinations of the two affections, each of which may render a man a more ready victim to the other.

For both European and native troops the Hills, which in the case of the latter include the hills of the north-west frontier, have the highest admission ratio for the ten-year period ; for prisoners the Deccan, which includes the jails of the Central Provinces, has the highest ratio of admission.

56. There was a slight rise in the admission and a slight fall in the death-rate from tubercle of the lungs. The Bengal Command, as in 1895, had higher admission and death ratios than the other corps. Among the groups the highest admission-rate was that of Upper Sub-Himalayan, and the highest death-rate that of the Hills. The Gurkhas suffer more than other native soldiers from tuberculosis :—

	Admission-rates.	Death-rates.
Bengal and Punjab Commands	3'5	1'03
Gurkha Regiments	7'4	3'59

The subject of tuberculosis among Gurkhas has already been touched upon at the end of paragraph 52. The number of admissions and deaths from tubercle of the lungs in each Gurkha and other regiment is given in Table XXXIX. The medical officer of the 2-2nd Gurkhas, having observed that tubercle and conjunctivitis chiefly affected the married men, found on inspection that their quarters were distinguished from those of the single men by overcrowding and want of ventilation.

57. Both morbidity and mortality from respiratory diseases were less than in 1895, and were also unusually low :—

PERIOD.	RATIO PER MILLE OF STRENGTH.			
	RESPIRATORY DISEASES.		PNEUMONIA.	
	Admissions.	Deaths.	Admissions.	Deaths.
1886—95	50	3'75	13	3'02
1895	53	4'87	18	4'20
1896	43	3'72	15	3'14

Respiratory diseases are the chief cause of death in the native army, and in 1896 over 36 per cent. of all deaths were due to them. For respiratory diseases other than pneumonia, the highest admission ratios were those of the Hills, Indus Valley, Bengal-Orissa, and Burma Inland, and the lowest that of Burma Coast. Of commands the Punjab had the highest death-rate, and Madras the lowest.

58. The admission and death ratios from pneumonia, as may be seen from the table given in the preceding paragraph, fell considerably ; but were still nevertheless above the decennial ratios. The ratios of 1895 had been unusually high owing to the exposure endured by the regiments on active service in Waziristan and Chitral. Again, the second table in paragraph 48 shows how far the yearly increase or decrease of influenza has affected the pneumonia death-rate. If the following

be compared with the same table, it will be seen that the influenza prevalence, which began in 1890, has caused pneumonia mortalities to run higher :—

YEARS.	RATIO PER 1,000 OF AVERAGE STRENGTH.		
	European troops.	Native troops.	Prisoners.
1883	·58	3·31	3·98
1884	·53	2·33	4·08
1885	·75	2·94	4·00
1886	·48	2·75	4·22
1887	·54	2·81	4·53
1888	·49	2·28	4·36
1889	·46	2·66	4·94

In Table XXVII it may be seen that the admission and death ratios were, as usual, highest in the Indus Valley, and that the percentage of pneumonia to total deaths was there also highest. Both in the Indus Valley and in the Hills, as may be seen in Table XXXVII, pneumonia was most prevalent in the cold months ; and the same was the case for India as a whole. Table XXXIX shows the incidence of the disease by regiments. The greatest numbers of cases were in the 3rd Sikhs at Wana and Dera Ismail Khan, the 8th Bengal Infantry at Nowgong, and the 37th Dogras at Sialkot. Some medical officers complain that however cold the climate or the weather may be, the sepoys insist on reducing themselves to a state of nakedness when cooking or going to the latrine ; and indicate this as a frequent cause of pneumonia and other respiratory diseases. Other causes mentioned are infection and bad ventilation ; great diurnal changes of temperature, with delay in receipt of warm clothing ; debility from hardship, fever, or scurvy. The medical officer of the 36th Sikhs at Peshawar says :—

That these cases of pneumonia are infectious cannot, I think, be disproved ; and constant instances have occurred in this regiment during the 3½ years in which it has been under my charge in which sick attendants have contracted the disease from their patients, though they commenced their duties as strong healthy men fit in every respect. Could the first cases which occur be strictly isolated, I am certain that the occurrence of many subsequent cases would be arrested, though perhaps this is not practicable in a native regiment.

With regard to the cases in the 38th Dogras at Nowshera, for which the medical officer had assigned about six general contributory causes, Surgeon-Colonel Harvey, Principal Medical Officer of the Punjab Command, remarks :—

As no less than 24 of the 39 cases originated in the hospital, I think direct infection was a potent factor. The hospital was badly ventilated. This has been rectified. The epidemic ceased on removal of the men into tents.

The medical officer of the Guides at Mardan observes that pneumonia was diminished by measures directed against malaria ; by further attention to the clothing of the men, especially in the early morning and after sunset ; and by improvements in the ventilation and warming of the fort barracks.

In the report for 1895 the subject of pneumonia was gone into with some detail ; and recommendations were made as to the measures that seemed likely to be successful in reducing the amount of the disease in the native army. Briefly summarised, these measures were attention to ventilation, to clothing, to food, and to the regular issue of antiscorbutics and antiperiodics.

59. From dysentery, the admission and death-rates were considerably lower than in the preceding year. The comparative prevalence and mortality from dysentery in the various

Dysentery, Diarrhœa.

portions of the army of India may be studied in Tables XXVI and XXVII. The highest admission-rates were in the Bengal command, and the Assam group; the highest death-rates in the Madras command, and in the Burma Inland group. The death-rate of native troops from dysentery was to that of European troops as 1 : 1·6; and the percentage of dysentery in total cases of death was 4·1 in the case of native troops, and 4·5 in the case of European troops. Again, the case-mortality of native troops was 1·01 per cent., while that of European troops was 2·38. The admission-rate of native troops, however, was much higher than of European troops, 39·1 to 26·1. Table XXXVIII is devoted to the incidence of dysentery by stations and months. The maximum month was August; and the maximum three months July—September, or exactly the months in which pneumonia was at its minimum. The ratios of individual stations will be found in Table XXVIII, where it will be seen that the highest ratios were in Upper Burma, Assam, and the north-west frontier; and the incidence of the disease by regiments in Table XXXIX. The medical officer of the 43rd Gurkha Rifles, Kohima, is inclined to think that dysentery was in a measure due to the difficulty in procuring vegetables in the rains; in other words, to scurvy. Many of the cases in the 27th Bombay Light Infantry, at Kurrachee, were ascribed to bazar drinks by the medical officer, who also reports as follows :—

Water was allowed to run into the canals and channels in and around Hyderabad this year, and it appears to have affected the health of the men for the worse compared with last year: the number of dysentery cases was quadrupled.

The greatest numbers of cases were in the 25th Bombay Infantry at Quetta, the 2nd Bengal Infantry at Silchar, and the 1st Sikhs at Miranshah. In these regiments the disease was ascribed in a general way to transfer from one climate to another, chill, exposure, wet, malaria, scurvy, bad water, bad flour, bad cooking.

The admission and death ratios from diarrhœa were also reduced in the year under review.

60. Hepatic abscess is not a frequent disease of the native soldier, and all that requires to be said on the subject has already been said in Section II, paragraph 28. Details are given in Tables XXVI—XXIX, and in Table XXXIX.

61. Full details regarding venereal diseases in 1896 will be found in Tables XXVI—XXIX, and in Table XXXIX. The following table is given to compare with the corresponding one in Section II, paragraph 29 :—

YEARS.	Primary Syphilis.	Secondary Syphilis.	TOTAL VENEREAL DISEASES.	YEARS.	Primary Syphilis.	Secondary Syphilis.	TOTAL VENEREAL DISEASES.
1877 . .	11·5	5·3	26·7	1887 . .	12·6	6·1	27·4
1878 . .	16·3	5·8	37·5	1888 . .	13·5	5·4	31·5
1879 . .	16·5	7·0	37·1	1889 . .	16·6	6·4	38·9
1880 . .	15·0	5·8	33·3	1890 . .	16·0	6·9	41·1
1881 . .	17·9	7·2	39·5	1891 . .	13·6	6·9	37·9
1882 . .	14·7	5·9	34·4	1892 . .	14·1	7·9	39·6
1883 . .	13·0	6·5	31·6	1893 . .	13·3	9·0	36·4
1884 . .	11·0	5·3	27·9	1894 . .	13·8	8·2	32·3
1885 . .	11·2	5·9	30·1	1895 . .	13·1	7·3	31·3
1886 . .	13·7	6·0	28·1	1896 . .	15·5	8·9	37·2

The figures for India are not available for the years before 1877. All the venereal ratios of native troops run at a much lower level than those of European troops; and there is not the same tendency to increase in the ratios of the former as in those of the latter, there having been no change in the native army corresponding to the introduction of the short service system in the European army.

A comparison of Tables I and XXVI will show that, leaving Central India, Rajputana, and Hyderabad out of account, the lowest ratios for both European and native troops were those of the Punjab Command, and the highest those of the Bengal Command. In all the commands the ratios of native troops were much lower than those of European troops.

Whilst among the European troops an average strength of 70,484 gave 36,058 admissions, in the case of the native troops an average strength of 128,286 gave only 4,757 admissions. In other words, there were only 37 admissions for every 1,000 men among native troops, against 512 for every 1,000 men among European troops.

The admission-rate for India was 5·8 per 1,000 more than in 1895. There were 8 deaths and 89 invalidings directly due to venereal disease. The actuals and ratios of individual stations for total venereal disease and for each form of venereal disease will be found in Tables XXIX and XXVIII. Among stations with high ratios, with great increase of ratio, with much secondary syphilis, those occupied by Gurkhas are prominent. Nine more stations than in the previous year had ratios over 20 per 1,000 from secondary syphilis, and 16 more, ratios over 10 per 1,000.

For India the ratio of primary syphilis *plus* ulcer of the penis rose by 2·4 per 1,000 of strength, that of secondary syphilis by 1·6, and that of gonorrhœa by 1·9.

In 1896 the Bengal Command had the highest ratio for primary syphilis *plus* ulcer of the penis, and for gonorrhœa (Bombay following very closely); while the Madras Command had, as usual, the highest ratio for secondary syphilis.

Those native troops that are serving in regions far away from their homes, and are separated from their families, appear to be most affected by venereal disease, and several medical officers notice it. The Gurkhas are the most conspicuous example of this. Some medical officers note that venereal disease is most frequent among recruits and young soldiers. From the 24th Madras Infantry at Quilon it is reported that the restrictions placed on marriage, and the consequent increase in the number of bachelors, have produced a rise in the amount of venereal disease.

62. All of the 81 cases returned as beri-beri occurred in the Madras Command, and of the 13 deaths 6 occurred in
Beri-Beri. *Dochmius.* Burma and 7 in the peninsular part of the Madras Command. In the 20th Madras Infantry at Vizianagram occurred 35 cases with 3 deaths, principally among the Tamil recruits, and in the 17th Madras Infantry at Rangoon 20 cases with 3 deaths. Nothing of importance is contributed as regards etiology, though the medical officer of the latter regiment describes the symptoms and treatment with some care.

No cases of sickness or death caused by the *dochmius duodenalis* were reported.

63. In the year under review the admission-rate from guinea-worm rose from 4·0 to 4·2 per mille, and the number of cases from 516 to 534. The distribution of the parasite by stations, groups, and commands will be found in Table XXIX. By far the largest number of cases occurred in Group VIII, that is, South-Eastern Rajputana, Central India, and Gujarat. Groups IX and VII came next. Of the total number of cases, between 6 and 7 per cent. declared themselves at Kherwara, and between 5 and 6 per cent. at Sirdarpore. All the distribution just described was the same as in 1895. The whole European army yielded only four cases. This great contrast is probably due to the different customs of Europeans and natives as regards bathing and water-drinking.

64. During the ten years 1881—90 there were 241 cases of suicide, or an average of about 24 per annum. There were 16 in 1896; of which 12 were by gun-shot, one by drowning, one by opium poisoning, one by arsenical poisoning, and one by jumping from a height. The following table shows the percentage distribution of cases of suicide in 1896 according to age :—

PERIOD.	CASES OF SUICIDE ACCORDING TO AGE—PERCENTAGES.							Total cases.
	Under 20	20—24	25—29	30—34	35—39	40 and over.	TOTAL.	
1881—90 . . .	9	41	20	18	5	7	=100	241
1895	10	30	15	20	15	10	=100	20
1896	6	50	19	6	19	...	=100	16

the next the percentage distribution according to service :—

PERIOD.	ACCORDING TO SERVICE—PERCENTAGES.						REMARKS.
	1st and 2nd years.	3—6	7—10	10 and over.	TOTAL.	Total cases.	
1881—90 . . .	24	29	14	33	=100	224	224 + 17 = 241
1895	30	15	20	35	=100	20	...
1896	6	50	19	25	=100	16	...

and the next the percentage distribution according to season :—

PERIOD.	ACCORDING TO SEASON—PERCENTAGES.					Total cases.
	January to March.	April to June.	July to September.	October to December.	TOTAL.	
1881—90 . . .	28	25	22	25	=100	241
1895	15	15	40	30	=100	20
1896	37	19	19	25	=100	16

Papers and Books referred to in Section III.

For explanation of abbreviations see end of preceding section.

- (1) B. M. J. of 7th August 1897, page 329.
- (2) B. M. J. of 14th August 1897, page 431. See also Brown in L. of 23rd October 1897, page 1038.
- (3) Delépine in L. of 5th December 1896, page 1587; Grünbaum in L. of 19th December 1896, page 1747; Delépine, Durham, Grünbaum in L. of 13th February 1897; Pakes in L. of 29th May 1897, page 1459; Durham in B. M. J. of 13th February 1897, pages 394 and 399; Stern in B. K. W. of March 15th and 22nd 1897, quoted in B. M. J. of 17th April 1897, epitome, page 61; Fison in B. M. J. of 31st July 1897, page 266; Report of Committee of American Medical Association, quoted in B. M. J. of 21st August 1897, page 492; Rénon in S. M. of 1897, page 38, quoted in C. B. XXI, page 483; Kolle in D. M. W. of 1897, No. 9, quoted in C. B. XXI, page 485; Stern in B. K. W., 1897, No. 11, page 225, quoted in C. B. XXI, page 742; Grünbaum in M. M. W., 1897, No. 13, page 330, quoted in C. B. XXI, page 745; Gruber in M. M. W., 1897, No. 17, quoted in C. B. XXI, page 815; Külman in B. K. W. of 1897, No. 19, quoted in C. B. XXII, page 21; Stern in C. I. M., No. 49, quoted in V. J. XXXI, 2-1, page 14; Johnston and Mactaggart in I. M. G. of September 1897, page 328; Færster in F. M., Vol. 15, page 401; F. M., Vol. 19, pages 759 and 760; Brown in L. of 23rd October 1897, page 1036.
- (4) Delépine in L. of 5th December 1896, page 1589.

SECTION IV.
JAILS OF INDIA.

65. The year 1896 having been, as stated in Section I, pages 7 and 8, comparatively settled, dry, rainless, and bright, sickness was less than usual, specially sickness due to malaria ; but on the other hand there was more or less food scarcity, and influenza and cholera were more prevalent.

YEAR.	Average annual strength.	RATIO PER 1,000.									
		Admissions into hospital.	Constantly sick.	DEATHS FROM							
				Cholera.	Remittent Fever.	Dysentery.	Diarrhœa.	Respiratory diseases.	Phthisis Pulmonalis.	Anæmia and Debility.	All causes.
1882-91*	89,642	1,093	38	2'91	1'60	6'84	3'93	5'99†	2'37	2'16	33'61
1895*	106,337	1,082	44	'80	1'20	7'15	2'31	5'14	2'54	1'49	27'61
1896*	110,090	983	41	1'27	1'07	5'91	1'98	5'28	3'07	1'43	27'69

* Excluding subsidiary jails.

† From 1886.

The chief causes of admission to hospital were ague ; abcess, ulcer, and boil ; dysentery ; and diarrhœa. Among the diseases with raised admission rates were influenza, cholera, small-pox, simple continued fever, tubercle of the lungs, and pneumonia ; while the rates from enteric fever, ague, remittent fever respiratory diseases other than pneumonia, dysentery, diarrhœa, and scurvy were lowered. Ague caused 28 per cent. of the total sickness, and bowel complaints 16 per cent.

The chief causes of death were dysentery, pneumonia, tubercle of the lungs, and diarrhœa. Among the diseases with increased mortality were cholera, tubercle of the lungs, and pneumonia. Among those with lessened mortality were enteric fever, remittent fever, respiratory diseases other than pneumonia, dysentery, diarrhœa and debility. Dysentery caused 21 per cent. of the total deaths, pneumonia 16 per cent., and tubercle of the lungs 11 per cent.

66. The following statement shows for each administration, except the Andamans, the proportion of prisoners in 10,000 of the population. Some of the prisoners of each province have been transported to the Andamans, and these are necessarily excluded from the calculations ; so that the ratios are all somewhat too low :—

ADMINISTRATIONS.	Period.	General population according to census of 1891.	PRISONERS.		
			Average number.*	Proportion per 10,000 of population.	Deaths per mille of average strength.*
Burma	1895 } 1896 }	7,605,560 }	13,666	18'0	17'93
			14,460	19'0	18'19
Assam	1895 } 1896 }	5,476,833 }	1,436	2'6	59'19
			1,534	2'8	50'85
Bengal	1895 } 1896 }	71,346,987 }	16,926	2'4	27'53
			17,495	2'5	28'64
North-Western Provinces and Oudh.	1895 } 1896 }	46,905,085 }	31,604	6'7	28'38
			32,984	7'0	28'83
Punjab	1895 } 1896 }	20,866,847 }	11,565	5'5	21'62
			12,021	5'8	15'64
Bombay	1895 } 1896 }	18,901,123 }	8,382	4'4	29'23
			8,256	4'4	31'98
Berar and Secunderabad	1895 } 1896 }	2,897,491 }	1,424	4'9	23'88
			1,432	4'9	25'14
Central Provinces	1895 } 1896 }	10,784,294 }	4,951	4'6	55'95
			5,583	5'2	72'36
Madras	1895 } 1896 }	35,630,440 }	9,790	2'7	18'19
			9,584	2'7	19'51

* Including subsidiary jails. The death-rates of the free population are given in the appendix to Section V.

67. The following table compares the ten administrations with each other, and the present of each administration with its past :—

	YEAR.	Average annual strength.	RATIO PER MILLE.*									
			Admis- sions.	Constantly sick.	DEATHS FROM							
					Cholera.	Remittent Fever.	Dysentery.	Diarrhœa.	Respiratory diseases.	Phthisis Pulmonalis.	Anæmia and Debility.	All causes.
Andamans .	1882-91	11,801	1,739	61	...	3'11	4'86	2'52	3'78†	4'31	1'43	28'72
	1895	10,259	1,648	52	...	5'26	8'19	4'48	1'95	2'53	3'51	31'09
	1896	10,520	1,350	46	...	2'19	6'08	1'43	2'28	3'80	1'43	23'29
Burma .	1882-91	8,339	983	41	7'78	1'32	9'79	2'91	4'15†	2'58	3'26	42'09
	1895	13,666	891	38	1'17	'88	3'37	'73	2'20	3'22	'29	17'93
	1896	14,460	759	35	'55	'62	2'97	'83	2'77	4'50	'28	18'19
Assam .	1882-91	1,201	1,978	58	5'41	1'92	13'58	6'58	5'65†	1'00	4'08	48'06
	1895	1,200	1,262	64	1'67	...	17'50	12'50	5'00	2'50	5'00	66'67
	1896	1,273	1,034	53	1'57	3'14	13'35	6'28	5'50	3'14	6'28	56'56
Bengal .	1882-91	13,984	1,373	47	5'65	1'95	13'62	5'46	4'68†	3'58	2'21	46'14
	1895	16,103	1,211	43	1'74	1'06	8'14	1'80	3'23	3'10	'99	26'95
	1896	16,542	1,221	40	3'75	1'57	7'38	1'15	3'32	3'14	1'27	29'20
N.-W. P. and Oudh. .	1882-91	22,617	727	29	1'67	'82	4'90	2'55	6'37†	1'83	2'01	25'62
	1895	31,296	914	57	'32	'35	8'21	2'30	6'01	1'92	2'01	28'31
	1896	32,830	892	51	'49	'73	4'75	2'38	7'74	2'44	2'50	28'82
Punjab .	1882-91	11,935	1,370	33	1'29	1'52	4'15	3'46	11'50†	1'58	1'05	31'91
	1895	11,415	1,446	35	...	'44	2'10	'35	9'29	2'72	'26	21'73
	1896	11,894	1,234	31	...	'67	1'68	'67	4'29	1'85	'17	15'64
Bombay .	1882-91	6,916	698	25	1'43	2'62	3'15	3'76	8'51†	1'55	2'07	31'18
	1895	7,212	1,010	33	'69	1'25	5'27	4'99	8'73	3'33	1'25	31'89
	1896	7,092	895	35	3'67	1'97	3'24	2'82	9'87	2'26	'85	33'56
Berar and Secundera- bad. .	1882-91	1,048	571	14	'86	1'34	'76	1'14	2'59†	1'43	'57	14'21
	1895	1,424	876	23	...	1'40	2'81	'70	6'32	1'40	2'11	23'88
	1896	1,432	594	18	1'40	...	'70	'70	7'68	'70	4'89	25'14
Central Prov- inces. .	1882-91	3,998	954	33	5'15	1'65	12'73	11'88	5'91†	1'15	5'10	52'87
	1895	4,951	922	35	3'03	1'41	23'03	6'46	7'08	2'83	3'23	55'95
	1896	5,583	1,112	41	3'94	1'79	32'60	10'21	8'06	5'37	2'15	72'36
Madras .	1882-91	7,333	748	27	3'44	'42	4'35	5'50	2'63†	1'62	2'73	28'79
	1895	8,418	746	28	1'07	'36	4'87	'12	3'20	1'90	'24	19'60
	1896	8,120	688	27	'25	...	2'83	...	2'71	3'45	...	20'81

* Excluding subsidiary jails.

† From 1886.

The prisoners of the Central Provinces and of Bombay were more unhealthy than in the previous year, the latter only very slightly so.

In 1896 the two most unhealthy administrations were, in order, the Central Provinces and Assam; and the three most healthy were, in order, Berar, Madras, and Burma.

As compared with the decennial ratios, cholera mortality was increased only in Bombay and Berar; dysentery and diarrhœa were nowhere simultaneously increased, nor was diarrhœa increased in any province; dysentery was increased in the Andamans, Bombay, and especially in the Central Provinces. Mortality from respiratory diseases was increased in the North-Western Provinces and Oudh, Bombay, Berar, the Central Provinces, and Madras; phthisis mortality

rose in Burma, Assam, the North-Western Provinces and Oudh, the Punjab, Bombay, the Central Provinces, and Madras ; and the total mortality increased in Assam, the North-Western Provinces and Oudh, Bombay, Berar, and the Central Provinces.

With regard to the absence of diarrhœa mortality in Madras the explanation given in paragraph 94 may be consulted. It will be noticed in the above table that the total mortality of the Punjab jails for 1896 is less than half the corresponding decennial ratio.

The contrast between the high mortality ratios of the Central Provinces, Assam, and Bombay, and the low ratios of the Punjab, Burma, and Madras is very striking.

The use of prophylactic doses of quinine or cinchonidine, though more extensive than at first, is still not sufficiently general.

In Table XL it is seen that the Andamans had the lowest death-rate from pneumonia ; Assam the highest from ague, remittent fever, and debility ; the Punjab the highest from small-pox, and the lowest from respiratory other than pneumonia ; Bombay the highest from pneumonia ; Berar the highest from respiratory diseases other than pneumonia, and the lowest from tubercle of the lungs ; the Central Provinces the highest from cholera, enteric fever, tubercle of the lungs, dysentery, diarrhœa, and " all causes."

In each 100 of the total deaths the proportion of tubercle of the lungs was greatest in Burma ; of fevers in Assam ; of cholera in Bengal ; of small-pox and pneumonia in the Punjab ; of debility in Berar ; and of dysentery and diarrhœa in the Central Provinces.

68. The Principal Medical Officer reports that owing to the large number of convicts employed in building the cellular jail there have been no reclamations in recent years, and fewer men have been employed in the forest work and on unhealthy labour generally ; and that this change has operated very favourably on the health of the convicts. With regard to the water-supply he writes :—

Andamans.

I have frequently noticed the defects in the water-supply, more especially in the dry weather before the monsoon rains, when nearly all the wells and many of the tanks dry up. It is difficult to effect any radical change in a country where there are no streams, and where a rocky subsoil prevents the sinking of deep wells. Considerable improvements have, however, been carried out for the protection and purification of wells and tanks. A patent boiler has been supplied to all big stations and hospitals, and the convicts are supplied with water boiled under careful supervision. The drinking water has been boiled in the Settlement for a good many years ; but the patent boiler invented by Mr. Larymore, and used in the Bengal jails, has a great many advantages, and facilitates supervision. Convicts do not like boiled water, and will, if they can, evade the orders on the subject. At large stations under close supervision, like Ross, Viper, Aberdeen, Dundas Point, and in the local jails, the orders are fairly well carried out ; but in the outstations, where the supervision depends nearly altogether on convict petty officers, one cannot expect very much accuracy in details.

69. " About half the jails in the province were in a chronic condition of overcrowding throughout the year." The increase in the total deaths from tubercle of the lungs and respiratory diseases was doubtless influenced thereby. As the Moulmein Central Prison has been persistently unhealthy for the past ten years, the Local Government is of opinion that it should be converted into a district jail, as soon as sufficient accommodation is available elsewhere.

Burma.

70. The conclusions arrived at by the Chief Commissioner as to the causes of the high mortality in 1895 led to the issue of orders in June 1896 restricting the employment of prisoners on extramural labour, and providing for the supply of dry and adequate clothing to those employed on such labour on their return to jail. In the predecessor of this report it was pointed out that other causes besides extramural labour were probably at work in producing the sickness, and it was suggested that the scales of diet in use were probably defective and insufficient. Steps have been taken to introduce into the larger jails the following measures, and rules are to be drawn up to make them generally applicable in all jails and lock-ups:—A more liberal scale of diet, including a large quantity of good vegetables and an extra meal in the early morning for prisoners employed extramurally; the discontinuance of the use of new rice; and the more extended prophylactic use of iron and quinine.

71. The results of the preventive issue of antiperiodics in Bengal are described in paragraph 85. Among other works for improving the supply of drinking water to the prisoners, it may be noted that the Pasteur-Chamberland filter has been installed in the jails at Motihari, Chaibassa, Bankipur, Jalpaiguri, Bogra, Dinajpur, and Rangpur. The Hazaribagh Central Prison, the “infirmity jail” of the province had a comparatively small mortality, owing to the systematic arrangements for dietary introduced and supervised by the superintendent, and to that officer’s constant attention to the selection and cooking of wholesome food for the prisoners. The Bhagalpur Central and District jails had a very low death rate, the reasons given therefor being the absence of malaria, the careful administration of prophylactic doses of cinchonidine, the great care and attention bestowed on the sick, and careful supervision in the preparation and cooking of food.

72. The year was a dry one, and the free population suffered but little from malarial fevers. There was, however, widespread scarcity throughout the province, much more intense than in 1895, and the health of the classes from which the jail population is chiefly drawn was undermined and weakened. While the absence of rain lessened the malarial influences, it, on the other hand, led, owing to failure of the crops, to a contracted food-supply and enhanced rates, a condition of affairs which appears to have been more effective than malaria in producing deterioration in the health of the poorer classes. A large majority of the men admitted were consequently in bad health; and owing to the increase of crime, the jails were more or less overcrowded. The comparatively low death rate under these circumstances shows that every attention was paid to preserving the health of the prisoners.

73. The favourable results of the year are ascribed to the general healthiness of the dry year, to the practice of giving a daily dose of cinchonidine to all prisoners in the autumn months, to the great pains devoted to the allotment of tasks and the treatment and care of the prisoners by the medical officers in charge of them, and to the issue of extra clothing to the convalescents and sick in the winter months. In 20 of the Punjab jails there were no deaths from dysentery or diarrhœa; and it may be mentioned in this connection that the issue of boiled

water for drinking is now limited to the Amritsar, Lahore Female, and Dharm-sala Jails.

74. No explanation is given of the excessive mortality in district jails as compared with that in central prisons. It appears that the longer the residence in district jails the higher the mortality, and that therefore prisoners confined in those district jails are unnecessarily exposed to preventable risks. This high mortality in district jails, and the prevalence of pneumonia in the jails at Ahmedabad, Hyderabad, Shikarpur, and in the Sind Gang, are deserving of attention. In consequence of its unhealthiness, proposals have been submitted for closing the Shikarpur jail, and transferring the prisoners to Sukkur.

75. The prisoners admitted into the Yeotmahl jail were nearly all in indifferent or bad health, but there was a good deal of overcrowding throughout the year; and it appears from the Sanitary Sheet that the condition of the barracks is not satisfactory.

76. The scarcity that prevailed in 1895 in the Central Provinces, and led to a greatly increased mortality among the prisoners—nearly double of that in 1894—developed in 1896 into actual famine extending over the greater part of the province. The condition of the prisoners on admission was consequently worse than that described in the report for 1895, and the results are seen in the great increase in the sickness and, especially, in the mortality. The primary cause of the dysentery which was so marked a feature of the sickness and mortality of the year was undoubtedly a low and anæmic condition, the result of chronic starvation. A so-called scorbutic form of dysentery is under such circumstances developed, and the patient, as a rule, rapidly succumbs. But the comparatively low mortality in some of the jails furnishes some ground for the suspicion that in some of the others there may have been local circumstances, which, if they did not aggravate the condition just described, at least failed to ameliorate it.

77. The year is stated to have been a healthy one, and the sickness generally was less than in 1895. Quinine was issued as a prophylactic in some of the jails, but not with the necessary regularity; and the results were therefore disappointing. Measures have been taken to remedy the local defects to which the high mortality of the Rajamundry jail was partly ascribed. The low mortality in the Trichinopoly Central Prison, which received weakly men from some other jails, could only have been attained through careful supervision and attention to every detail connected with the feeding of the prisoners and the sanitary conditions under which they are placed.

78. It having been found that the rough sketchy alignment of the geographical group boundaries in the map was productive of inconvenience in practice, advantage has been taken of the preparation of a new map to make those boundaries absolutely definite. This has been carried out in consultation with the Meteorological Department, the principle adopted being that the boundary lines of geographical groups should always follow the boundary lines of civil districts, and, as often as possible, those of provinces. In a few cases this has necessitated the transfer of a station from one group to another. In addition, some few changes recommended by the Meteorological Department have been carried out, such as the transfer of the Etah District from Group VI to Group V, and of the Muttra

district from Group VI to Group VIII. On the other hand, the Meteorological Department has made several changes in its map to suit the Sanitary Commissioner with the Government of India; and the two maps are now in complete agreement.

The boundaries agreed upon are as follows, the names mentioned being those of districts, not of towns :—

Groups I and II together coincide with the Lieutenant-Governorship of Burma and the Chief-Commissionership of the Andamans. The boundary line between Groups I and II runs east of North Arakan, Akyab, Kyaukpyu, Sandoway, Henzada; north of Henthawadi and Pegu; west of Shwegyin and Toungoo; north of Toungoo; east of Toungoo, Shwegyin, Salween, Amherst, Tavoy, and Mergui.

Group III coincides with the Chief-Commissionership of Assam.

Group IV is bounded on the east by Burma and Assam. The boundary line then runs south of the Himalayan districts (north of Jalpaiguri, Dinajpur, and Purneah); east of Bhagalpur, Monghyr, Hazaribagh, Manbhum, Singhbhum; south of Singhbhum; east of Bonai and Deogarh; south of Kairakhol and Sonpur; east of Patna; north of Ganjam. The southern boundary is the Bay of Bengal.

Group V. The boundary line runs west of Midnapore, Bankura, Burdwan, Sonthal Pergunnahs, Purnea; south of the Himalayan districts; west of Kheri; north of Hardoi, Farakhabad, Etah; west of Etah; south of Etah, Mainpuri, Etawah, Jalaun, Hamirpur, Banda, Allahabad, Mirzapur; north of Sarguja, Korea, Changbhakar; west of Changbhakar; south of Changbhakar, Korea, Sarguja, Udaipur, Gangpur, Bonai; east of Bonai; south of Singhbhum.

The boundary line between Va and Vb runs north of Hazaribagh, Palamau, and Sarguja.

Group VI. The boundary line runs south of Aligarh, Budaon, Shahjahanpur; east of Shahjahanpur and Pilibhit; south of the Himalayan districts; east of Rawalpindi and Hazara; is open at the extreme north; then runs west of Hazara, Rawalpindi, Jhelum, Gujrat, Gujranwala, Lahore, Ferozepore, Hissar, Rohtak, Gurgaon.

The boundary line between Vla and Vlb runs west of Umballa, Patiala (Nabha Jhind), and Hissar.

Group VII. The boundary is open on the north and west. It runs east of Peshawar, Kohat, Bannu, Shahpur, Jhang, Montgomery, Bahawalpur; east and south of Bikanir Marwar, Thar and Parkar, Hyderabad, Kurrachee.

The boundary line between VIIa and VIIb runs west of Peshawar, Kohat, Bannu, Dera Ismail Khan and Dera Ghazi Khan.

The boundary line between VIIb and VIIc runs north and west of Upper Sind Frontier, Shikarpur, Kurrachee.

The boundary line between VIIa and VIIc runs west of Dera Ghazi Khan, Bahawalpur, Jeysulmere, Malani, and Marwar.

Group VIII. The boundary line runs north of Thana, Nasik, Khandesh, Nimar, Hoshangabad, Narsinghpur; west of Saugor; north of Saugor and Damoh; west of Panna; south of Banda, Hamirpur, Jalaun, Etawah, Mainpuri, Etah, Aligarh, Gurgaon, Rohtak, Hissar; east of Bikanir and Marwar; south of Marwar, Thar and Parkar, Hyderabad, Kurrachee.

The boundary line between VIIIa and VIIIb runs west of Sirohi, Meywar, Dungarpur, Banswara, Jhabooa, Rajpur.

Group IX. The boundary line runs east of Thana, Kolaba, Ratnagiri, Goa, North Kanara; north of Shimoga, Chitaldroog, Bellary, Kurnool, Kistna, Godavari; south of Bastar, Raipur, Kalihandi, Patna, Sonpur, Kairakhol; east of Deogarh; north of Deogarh, Sambalpur, Raigarh, Korba, Bilaspur; west of Korea, Changbhakar; north of Changbhakar, Korea, Sarguja; west of Mirzapur; south of Mirzapur, Allahabad, Banda; west of Panna; north of Damoh and Saugor; west of Saugor; north of Narsinghpur, Hoshangabad, Nimar, Khandesh, Nasik, Jawhar.

The boundary line between IXa and IXb runs south of Nimar, Hoshangabad, Betul; west of Chhindwara, Nagpur, Wardha, Chanda.

Group X. The western boundary is the Arabian sea. The line then runs east of Thana, Kolaba, Ratnagiri, Goa, North Kanara, South Kanara, Malabar, Cochin, Travancore.

Group XI. The boundary line runs east of Travancore, Cochin, Malabar, South Kanara, North Kanara; north of Shimoga, Chitaldroog, Bellary, Kurnool, Kistna, Godavari, Vizagapatam, Ganjam; north-east of Ganjam.

The boundary line between Xla and Xlb runs west of Kistna, Nellore, North Arcot, South Arcot, Trichinopoly; north of Madura.

The boundary line between Xlb and Xlc runs south-west of Godavari and north-east of Kistna.

79. The next table institutes a comparison between the geographical groups, and between the present of any group and its past:—

		RATIO PER 1,000 OF AVERAGE STRENGTH.												
		I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	
		Burma Coast and Bay Islands.	Burma Inland.	Assam.	Bengal and Orissa.	Gangetic Plain and Chutia Nagpur.	Upper Sub-Himalayan.	North-West Frontier, Indus Valley, and North-Western Rajputana.	South-East Rajputana, Central India, and Gujarat.	Deccan.	Western Coast.	Southern India.	Hills.	India.
1886-95	Constantly Sick .	52·6	35·8	57·9	45·4	36·3	36·9	32·6	35·5	31·2	29·8	24·7	38·4	39·1
	Deaths—Cholera .	2·57	5·16	5·46	3·49	2·71	1·56	·30	1·68	3·20	1·63	5·66	1·29	2·75
	Deaths—Dysentery	8·46	5·07	14·30	10·35	7·55	4·14	2·25	4·12	7·13	6·83	3·68	12·47	6·80
1895	Constantly Sick .	47·3	30·3	65·0	45·1	57·1	40·1	32·7	44·2	35·3	30·4	28·0	31·4	44·3
	Deaths—Cholera .	·41	1·77	1·73	2·58	·44	...	...	...	2·17	...	1·22	...	·80
	Deaths—Dysentery	6·08	2·65	17·33	7·46	9·98	2·85	1·70	7·18	13·11	8·68	2·99	24·29	7·15
1896	Constantly Sick .	42·0	30·4	54·2	45·3	49·6	36·6	30·6	36·4	38·1	37·2	27·3	34·3	40·8
	Deaths—Cholera .	·25	·62	1·62	2·02	1·82	·36	...	...	2·65	11·17	·27	...	1·27
	Deaths—Dysentery	4·77	2·26	12·94	7·91	5·75	1·95	1·09	3·88	18·99	8·85	3·14	2·02	5·91

In agreement with the decennial averages, Assam had the highest constantly sick rate, and Southern India the lowest. The cholera mortality was lower than the decennial average in all the groups, except Western Coast, where the ratio was raised by an outbreak in the Thana jail. In disagreement both with the decennium and with the previous year, the highest dysentery mortality was recorded in the Deccan.

In Table XLI the statistics of the geographical groups as regards prisoners in 1896 have been placed side by side for comparison. Burma Coast had the lowest admission rate from pneumonia, and the highest from other respiratory diseases; Burma Inland the highest from enteric fever; Assam the highest from remittent fever, diarrhœa, and spleen diseases; Bengal-Orissa the highest from influenza, and "all causes"; Upper Sub-Himalayan the highest from ague; Indus Valley the highest from smallpox and abscess, and the lowest from simple continued fever and dysentery; Central India the highest from pneumonia; Western Coast the highest from cholera and scurvy; Southern India the highest from tubercle of the lungs, and the lowest from ague, remittent fever, and diarrhœa; and the Hills the highest from simple continued fever, and the lowest from tubercle of the lungs and respiratory diseases other than pneumonia.

The percentage in total admissions, of fevers was highest in Upper Sub-Himalayan, of bowel complaints in Assam and Bengal-Orissa, of respiratory diseases in Central India.

80. Some details regarding the sanitary defects in the most unhealthy jails, and regarding improvements effected or recommended, will be found in Table XLIV. The

Individual Jails.

Parvatipuram jail was closed on the 26th February, 1896, on account of its unhealthiness. The sickness and mortality ratios of all jails may be studied in Table XLII.

81. The sickness and mortality in India as a whole, in the various administrations, in the geographical groups, and in individual jails, having been studied, it now remains to notice a few of the more important diseases which affected the prisoners.

82. The following table shows the progress of the influenza epidemic from its first outburst in 1890. There has been an increase of the disease every alternate year :—

YEARS.	NUMBER OF ADMISSIONS INTO HOSPITAL IN EACH MONTH.													Admitted per 1,000 of strength.	Died per 1,000 of strength.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		
1890 . .	1	16	377	3,808	2,341	796	232	6	1	...	1	1	7,580	78.6	.67
1891 . .	3	152	91	19	32	119	459	285	266	72	19	387	1,904	18.9	.29
1892 . .	539	806	2,947	1,059	223	89	60	65	38	12	7	6	5,851	56.7	1.26
1893 . .	9	38	109	114	106	47	12	11	34	58	76	36	650	6.4	.09
1894 . .	733	545	758	1,415	513	28	5	1	19	42	59	63	4,181	41.0	.43
1895 . .	69	151	619	288	84	64	88	9	145	192	38	411	2,158	20.3	.15
1896 . .	853	1,357	1,232	293	32	10	5	1	270	54	15	19	4,141	37.6	.60
TOTAL .	2,207	3,065	6,133	6,996	3,331	1,153	861	378	773	430	215	923	26,465	36.7	.50

In the year 1896 Burma Coast, Burma Inland, and Western Coast were the only groups which escaped. As many as 95 jails were affected, against 48; and 49 of them had not been attacked in the previous year. The incidence of the disease may be studied in Table XLV, and the ratios of sickness and mortality will be found in Table XLII. Cases occurred in every month of the year, but the majority in the first four months. As in the previous year, there was an increase in September. The greatest numbers of cases occurred at Dacca, Bareilly (Central), and Lahore (Central); Dacca having been in this list also in the previous year. In Table XLV it may be seen that in some jails the outbreak was short and compact, in others long drawn out, while in some there were two distinct outbreaks.

The Inspector-General of Prisons, Bombay, writes :—

An outbreak of influenza, which appeared amongst the prisoners of the Sind gang at the close of 1895, extended into the month of January 1896, and, as it progressed, became more violent in type, causing the death of six prisoners within the space of seventeen days. The chill winds prevailing at the period of the outbreak have been set down as the main cause of this sickness, influenza having at the same time made its appearance among the free population in the vicinity of the gang camp. Of the twenty-five prisoners who recovered, twenty were left in such a debilitated condition by the illness through which they had passed that it was found necessary to transfer them to the Hyderabad Central Prison.

83. There was an increase of both morbidity and mortality from cholera; the admissions rising from 132 to 253, the admission ratio from 1.2 to 2.3, the deaths from 85 to 140, and the death ratio from 0.80 to 1.27 (Table XLII). There was increased mortality in the administrations of Bengal, the North-Western Provinces and Oudh, Bombay, Berar, and the Central Provinces. The incidence of the disease may be studied in Table XLVI. There was no cholera in the Indus Valley or in

the Hills among groups; and none in the Punjab and, as usual, the Andamans, among administrations. For the decennium 1886—95, the Indus Valley had the lowest ratio among geographical groups and Southern Indian the highest; while among administrations, the Andamans were, as usual, completely exempt. The month of maximum prevalence in 1896 was July, but in no month were the jails of India completely free from the disease. The table given below shows that it is usual for the maximum to be reached either in July or in August. The most severe outbreaks were those at Thana, Patna, and Darbhanga. The circumstances attending some of the chief outbreaks will be noted in Section VI.

The Inspector-General of Jails, Bengal, reports :—

At Darbhanga the disease was first caused by drinking the water of a tank in the outer grounds, which on examination was found to be teeming with comma bacilli.

With regard to the outbreak at Thana, the Inspector-General of Jails, Bombay, says :—

The usual procedure observed in the case of cholera epidemics in our prisons, namely, the removal of the prisoners into camp, was not adopted on the above occasion, as at the time of the outbreak, there was exceptionally heavy rain at Thana, rendering it impossible, save at the risk of aggravating the sickness amongst the prisoners, to vacate the prison temporarily. . . . The meteorological conditions of Thana at the time of the epidemic were altogether unusual. Between the 11th and 22nd 26 inches of rain fell, and between the 23rd and 31st July, nearly 33 inches, making a total of 59 inches in 21 days, a prolonged down-pour for three weeks practically without a break. The ground in the vicinity of the prison became a swamp, the prison graveyard being for a time submerged, with the result that a number of the corpses of the victims of the epidemic, which would otherwise have been buried, had to be disposed of by burning.

The following table shows that in respect of cholera 1896 compares on the whole favourably with preceding years. It also shows that July and August are the worst months for cholera :—

YEARS.	NUMBER OF ADMISSIONS INTO HOSPITAL IN EACH MONTH.												TOTAL.	Admitted per 1,000 of strength.	Died per 1,000 of strength.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.			
1887 . .	38	1	37	66	12	13	134	80	74	22	19	18	514	6·5	4·08
1888 . .	1	14	56	123	51	74	154	172	11	5	23	14	698	7·8	4·65
1889 . .	26	4	24	71	118	98	300	65	18	13	3	14	754	7·9	4·48
1890 . .	2	5	5	3	1	15	54	51	37	48	48	2	271	2·8	1·44
1891 . .	28	4	2	23	43	30	52	185	24	17	119	42	569	5·6	3·09
1892 . .	127	45	81	58	33	81	239	143	23	2	53	12	897	8·7	4·73
1893 . .	6	2	15	39	22	6	14	8	2	3	10	40	167	1·6	·83
1894 . .	16	5	6	13	35	7	118	124	26	19	2	4	375	3·7	2·29
1895 . .	2	1	1	8	24	6	27	41	6	2	12	2	132	1·2	·80
1896 . .	2	3	14	42	22	47	68	37	4	5	4	5	253	2·3	1·27
TOTAL	248	84	241	446	361	377	1,160	906	225	136	293	153	4,630	4·7	2·69

84. To smallpox was due a higher morbidity and mortality than in any year since 1889. There were 116 admissions with

Smallpox.

11 deaths, as against 15 cases with 3 deaths in 1895.

The distribution of the smallpox of 1896 in geographical groups, administrations, and individual jails, is displayed in Tables XL—XLIII. Groups I and III

escaped, as they did in the preceding year; and the highest admission ratios were those of Indus Valley, Gangetic Plain, Central India, and the Hills. The administrations of the Andamans and Assam, as in the previous year, escaped; and the highest ratios were those of Bombay and the North-Western Provinces and Oudh. The greatest actual numbers of cases were at Allahabad (Central) and Shikarpur; and the highest ratios at Shikarpur and Sultanpur. In the ten-year period 1887—96, and in most of the individual years of the period, the great majority of cases occurred in the months of February, March, and April; March being in every year, except two, markedly the maximum month. It has already been shown that there was an increase of smallpox also among European and native troops, and Section VI will show that the same is true of the general population. The smallpox of the ten years 1886—95 is dealt with in Section III, paragraph 50.

85. Of the total number of admissions, ague furnished 28 per cent., against 35 per cent. in the preceding year. Table XLIX shows that October was, as usual, the most malarious month. The ratios of sickness will be found in Table XLII. There was a great reduction in ague in 1896, and in this reduction all the geographical groups except the Hills participated. The reason for this was no doubt the dryness of the year, as is noted by some of the local officers. The opinions recorded with regard to the prophylactic issue of febrifuges are on the whole favourable; but the fact that in the very dry year 1896 malaria was less active than usual makes it difficult to estimate exactly how much benefit was due to the medicines. The Senior Medical Officer, Port Blair, writes:—

For many years quinine and the cinchona alkaloids have been used as prophylactics in the unhealthy stations, and latterly they have been more generally administered. . . . It must, however, be admitted that the accurate supervision of the administration of these medicines is somewhat difficult, owing to the convicts being scattered over 28 square miles of country.

The Inspector-General of Jails, Bengal, says:—

Having regard to the negative results obtained in 1895 in many jails, it was recommended that the prophylactic should not be given in the dimness of the early morning, as had been done hitherto, but at one of the midday parades, when the responsible officers of the jail were present. It is very necessary that the superintendent and medical officer keep themselves acquainted with the working of this parade, or it is apt to become a sham, and no results will be observed.

On the whole, it is obvious that perseverance is required until it has been made quite certain that the prisoners have actually received the febrifuges at the proper season for a series of years. The issue of the medicines should be begun well before the onset of the fever-season, and should not be stopped until well on in the commencement of the healthy season. Some of the medical officers in the Bengal administration were of opinion that dysentery as well as fever had been diminished by the use of the drugs.

86. Details with regard to remittent and simple continued fevers will be found in Tables XLII, XLVIII, and L. The diminution in remittent was not so great as in the case of ague. The maximum month for remittent fever was May. With a view to the better investigation of fevers, instructions have been issued to medical officers of jails to furnish details of the etiology and symptoms of all cases returned by them as remittent fever; but so far no results of value have been received. What is wanted is not a disquisition on the supposed causes of

remittent fevers in general, but a record of investigation into the causation of a particular case. A positive result from examination of the blood would, for example, be of value, provided the medical officer was competent to make it. Too often the symptomatic fever of organic disease is returned as remittent fever.

87. Throughout the jails of India there were returned 21 admissions from enteric fever with 7 deaths, the numbers in the preceding year having been 38 and 14. No jail had more than 2 cases, except the Fatehgarh Central Prison, where there were 7 cases, two less than in 1895. In the fatal case at Myingyan the spleen was found to be normal; in that at Rangpur there was a doubt in the diagnosis as between enteric fever and dysentery,* the final opinion being arrived at by the very insufficient means of a histological examination; while in one of the fatal cases at Fatehgarh there is said to have been a combination* of dysentery and enteric fever. None of the reports throw any light upon the origin of the cases. The medical officer at Fatehgarh says, at different places:—

The water was analysed and declared good by the government analyst, but the extra precaution was taken of throwing in permanganate of potash and cleaning out the wells. Unfortunately there is no record to show whether, as in the preceding year, the disinfecting of the wells with permanganate of potash was followed by a cessation of the outbreak. Of the 7 cases 2 came from the right circle and 5 from the left. The cause of death in the two fatal cases was verified *post mortem*.

On the other hand the Inspector-General comments as follows:—

The two circles are far apart, and their water supplies separate. This can hardly be looked upon in any other light than an accident; as with a population of 2,162 all living and eating and drinking the same food and water, that only seven should contract the disease is most extraordinary, and the question naturally arises in the medical mind, were these cases really enteric? I certainly am inclined to doubt it.

Either the Fatehgarh Central Prison had 16 cases with 4 deaths in the two years, or in doubtful cases the medical officer of the prison was too much inclined to a positive diagnosis. In such circumstances of dispute the institution of a bacteriological examination of the spleens of the fatal cases by means of cultivations and microscopical sections would be likely to give some decisive results.

88. In a considerable number of cases occurring in Germany (1) the diagnosis of cerebro-spinal fever has been made by bacteriological examination of the fluid obtained from the living patient by lumbar puncture. It appears that in cases occurring in epidemics the Weichselbaum-Jaeger *meningococcus intracellularis* was found, but in some at least of the sporadic cases the Talamon-Fraenkel *diplobacillus lanceolatus*. In one case the meningococcus obtained from the spinal fluid of a patient was inoculated into two goats, which died with symptoms of meningitis, the meningococcus being recovered from the meningitic deposits. "By these experiments the author has surely removed the last doubt as to the specificity of the *meningococcus intracellularis*, which was originally maintained by Jaeger."

There were seven cases of this disease, all fatal, against 8 cases with 5 deaths in the previous year. The *post mortem* records were not satisfactory except in the case of Mozuffarpore. All the cases of 1896 occurred in jails of the Bengal administration; and out of 86 cases, 70 fatal, that were diagnosed in the jails of India in the six years 1891-96, 45, or 52 per cent., were in the jails

* See Section I, paragraph 14, under heading "Dysentery."

of Bengal; 21, or 24 per cent., in the jails of the Punjab; and 10, or nearly 12 per cent., in the jails of Bombay. On the other hand the Andamans, Assam, and Berar did not return a single case; while Burma and Madras had only one case each. The Alipore jail was the one most affected. Again, in the ten-year period 1887-96 only one case, in 1896, was returned among European troops; 3 cases among native troops; but 220 cases with a mortality of 76 per cent. among prisoners. Of the 220 cases, 169 occurred in the first half of the decennium, but only 51 in the second half. Previous reports have mentioned the appointment of special committees to examine jails specially affected, the sanitary defects found, the recommendations made, and the success of the remedial measures adopted.

89. There were no cases of typhus among the prisoners of India during the year. In the six years 1891-96 there were 174 cases with a mortality of 15.5 per cent. The disease was entirely confined to the jails of the Punjab; and 164 of the cases, with a mortality of 15 per cent. occurred in 1893 in the Rawalpindi and Peshawar jails. Though the medical officer states that "during January almost the whole jail population was in hospital owing to an epidemic of fever said to be relapsing fever;" the Moradabad jail returns of sick show only 6 cases of relapsing fever with 4 deaths, in continuation of the epidemic of the previous year, from which 74 cases remained in hospital on the first day of 1896. The total case-mortality in this Moradabad outbreak was nearly 24 per cent., an extraordinarily high figure for relapsing fever. It will be noticed that the medical officer was not sure of the diagnosis. During January and February no prisoner was admitted into the jail precincts: a camp was formed outside. In 1891 there occurred 42 cases with a mortality of 21 per cent., also a very high ratio, 40 of them in the Sialkot jail. Bengal with 2 cases in 1892 was the only other administration in which the disease was seen in the six years 1891-96. The first case of plague among prisoners, the only one in 1896, was diagnosed in the Bombay civil jail, and the man was removed to the infectious diseases hospital.

90. In all 229 cases of erysipelas with 21 deaths occurred in the jails of India against 155 and 10 in the preceding year; 84 in the North-Western Provinces and Oudh, 64 in the Punjab, and 31 in Bombay. The Allahabad District Jail had 60 admissions from it, the Shikarpur jail 25. The Allahabad jail had also the highest number of cases in 1895, 36; so that, therefore, that jail apparently requires a thorough cleansing, and a revision of its sanitary arrangements. In consequence of the prevalence of pneumonia and erysipelas in the Shikarpur jail renewed efforts were made to improve the ventilation of the sleeping barracks. The epidemic, for the appearance of which the medical officer could assign no cause, lasted for about four weeks, and finally disappeared in April. Temporary shelters were erected in the garden for the accommodation of the patients.

Year by year a large number of cases of mumps is returned from the jails of India. During the year under review there were 945 cases, against 1,053 in the previous year. In the North-Western Provinces and Oudh occurred 424 cases, in Burma 235, and in Bengal 191; the highest numbers in individual jails being 296 at Agra (Central), and 142 at Insein.

91. In the year under review there was a reduction in the amount of scurvy returned, as compared with the preceding year. The ratios and actuals for scurvy will be found in

Typhus, Relapsing
Plague. Fever,

Erysipelas and Mumps.

Scurvy.

Tables XL—XLIII. Out of the whole number of cases 34 per cent. occurred in the Central Provinces, and 23 per cent. in Bombay. Again, 18 per cent. occurred in the Nagpur Central Prison. The number of cases returned is undoubtedly small, only 115 for the whole of India; but the number returned does not by any means represent the actual number occurring. For example, no cases of scurvy appear in the sick returns of the jails of Assam; yet the Inspector-General says:—

My attention has been called to the presence of scurvy in several of our jails. This is undoubtedly to be attributed to the paucity of vegetables supplied, as well as to the fact that the class generally grown is not of a sufficiently nutritious and antiscorbutic nature. The growth of potatoes, onions, *papiya*, and tomatoes will be encouraged, and the experimental cultivation of the China cabbage continued.

In addition to the fact that mild cases are sometimes treated with lime-juice without admission to hospital, other cases come to be returned under the head of other diseases which are more or less due to scurvy. Hence as an index of the scorbutic taint the number of cases of scurvy returned is usually not so valuable as the number of cases of dysentery, debility, dropsy, pneumonia, ulcer, etc., and more especially the number of deaths from such diseases.

In the six years 1891-96 of all the administrations the Central Provinces returned most scurvy in proportion to strength, and the North-Western Provinces and Oudh the least; and in this instance the conclusion that the prisoners of the Central Provinces were actually more scorbutic than those of the North-Western Provinces and Oudh seems supported by the uniformly higher ratios of admission and death from dysentery among the former.

As confirming what has been said above, the concluding sentence of the following extract from the report of the Senior Medical Officer, Port Blair, should be noted:—

I have frequently noticed the unsatisfactory state of the vegetables, and considerable attention has been given to the subject. Old gardens have been developed, and new ones started, and the vegetable supply is now nearly altogether under the control of Settlement authorities, instead of being in the hands of contractors. Yams and radishes have also been substituted to a considerable extent for *bajis*, cucumbers, pumpkins, and other squashes of doubtful antiscorbutic value. Scurvy has hardly been noticed during the year, and the general good health that prevails is a certain index that it does not underlie other diseases to any serious extent.

92. In Tables XL—XLIII may be seen the ratios and actuals for tubercle of the lungs. Among administrations Bengal used to have the highest ratio of admission; whereas both in 1895 and in 1896 Madras had the highest, and its ratio increased from 9.0 to 14.0 per 1,000 of strength. The admission ratio of Berar was the lowest. The highest death ratio was in the Central Provinces, and the lowest in Berar. The Inspector-General of Jails, Madras, says:—

There was a considerable increase in the admissions, and some increase in the mortality, from tubercle of the lung. Whether this points to a real increase in the prevalence of the disease, to a change in classification (chronic pneumonic phthisis being now returned under this head), or to greater care in diagnosis, cannot be determined with certainty. Probably all three causes have contributed to the result; and the course which has been followed in some jails, *e. g.* Rajamundry, of leaving tubercular patients in the general wards, is certainly inexpedient. Burmese convicts appear to be specially subject to this disease in this presidency.

Of the jails with high ratios (Table XLII), Presidency, Dinajpur, Orai, and

Ahmedabad, had also high ratios in 1895. The Inspector General of Jails Burma, writes :—

The admissions and deaths from this cause have steadily increased in the Rangoon jail since 1891, and the superintendent says "I have been constantly searching for the cause of this, but have been unable to discover aught other than slight overcrowding." The superintendent of the Moulmein jail observes in this connection: "In last year's report it was stated that tuberculosis attacked Karens and Taungthas far more than other races, but during the past year (1896) it attacked Burmans and Talaings more than Karens, judging from the admissions of these races during the year." It has always hitherto been held that Karens, Chins, and members of other hill tribes, detained in jail, were specially liable to tubercular affections.

In this report pneumonic phthisis has been included in tubercle of the lungs both in 1895 and in 1896, so that the comparison made in this paragraph between the two years in the case of certain administrations is legitimate. Besides the dangers from the presence of infectious cases, from site-crowding, from overcrowding, from want of ventilation, from certain jail-industries, it must be remembered that for the last seven years influenza has been at work among the prisoners of India, increasing the amount of respiratory disease and of debility, and thereby increasing the susceptibility to tubercle of the lungs. Influenza may be the hidden cause of some of the increase in respiratory disease in certain of the Madras jails, which is referred to by the Inspector-General as unexplained.

93. With the increase of influenza there was a rise in the pneumonia admission and death rates. The second table in paragraph 48, Section III, shows the variation of the pneumonia death rate with the varying prevalence of influenza from the first year of the epidemic. The same table also displays the fact that in 1896 the prisoners suffered much more severely than the European and native troops. Table LI shows that the months of greatest prevalence of pneumonia were January, February, March and December, an indication that cold is a factor in the causation of the disease. In Table XL it may be seen that, as usual, Bombay had a very high death rate; while the Punjab had a comparatively low death rate, which is unusual. An uncommon feature of Table XLI is that Central India had the highest admission and death rates from pneumonia; Indus Valley, which is usually first, coming only third, after the Hills. Yet there was little influenza in Central India, in which the jails that raised the pneumonia ratios were the two Agra jails and the Ahmedabad jail. No satisfactory attempt is made to offer an explanation in the case of the Ahmedabad or of the Agra district jail. The medical officer of the Agra central prison says :—

By far the most important and fatal disease was pneumonia. I regret to state that I am unable to determine the exact causes. It was most prevalent from March to May, and caused altogether 30 deaths and 135 admissions. There was overcrowding in the jail for some time from August to October, and, in addition, the barracks and factories of the jail are, I think, too close together, so that there is site-crowding. The disease was, however, much less prevalent during the second half of the year, when the same conditions prevailed, and is at present non-existent, so that there must be other factors in its production. It moreover, did not appear to be epidemic or infective, nor was it caused by any particular form of labour, nor confined to any particular part of the jail. Steps were taken to spread out the prisoners as much as possible, and the wide and airy corridors were used to prevent barrack-overcrowding. The number of admissions from the disease among prisoners in the corridors appeared to be less than in the barracks. Prisoners were also transferred to other jails. The special industries, carpet and blanket making, may have had some

slight influence in increasing the number of cases. The prisoners while engaged in their work are necessarily very close together, and they breathe impure air for long periods. The disease was said to be notably prevalent in the city at the time it was most prevalent in the jail. On the whole, the slight overcrowding and some peculiar climatic influence, the exact nature of which it is difficult to determine, seem to have been the chief causes,

Agra belongs to the North-Western Provinces, and it may be seen in Table XL that the North-Western Provinces and Oudh had the highest admission, though not the highest death rate of all the administrations. The highest ratios for individual jails may be found from Table XLII. The most frequent reasons given by medical officers for unusual prevalence of pneumonia were outbreaks of influenza, and overcrowding. Some of those jails will be found mentioned in Table XLIV, Mozaffarnagar, for example.

The Inspector-General, North-Western Provinces and Oudh, says :—

The jails have been full to overcrowding, and it has only been with the greatest difficulty that the dangerous effect of too close packing among the prisoners has been avoided. I have on every occasion taken the opportunity of impressing on all superintendents that, this being a special year, every effort should be made to prevent too many prisoners occupying the sleeping barracks; and the factories had to be utilised to accommodate prisoners at night when the number exceeded the accommodation provided. The evils of overcrowding are much more accentuated if too many persons are put into one building to sleep: the air of the barracks becomes contaminated, and pneumonia is sure to be the result. This being so, the wisest plan is to separate the prisoners at night as much as possible, as the sites of all our jails are more than sufficient for the actual numbers imprisoned; and by a judicious use of available buildings as temporary sleeping apartments there is no danger of contamination of the air at nights.

With regard to Shikarpur, which had the highest pneumonia ratios of the Bombay administration, the Inspector-General remarks that renewed efforts were made to improve the ventilation of the sleeping barracks.

Other respiratory diseases were, as in 1895, most prevalent in the Andamans; and the same is the case for the period 1882-91 taken as a whole. The admission ratio was, however, lower than in the preceding year. Among geographical groups the Hills had the lowest admission ratio.

94. The admission and death ratios for India from dysentery and from diarrhoea fell; and this was probably due more or less to the fact that the year 1896 was drier and less malarious than its predecessor. The character of the year as regards malaria is one of the circumstances which has to be allowed for in using the amount of sickness and mortality from bowel complaints as an index of jail management. Another is that in some parts of India dysentery is more readily contracted than in others. A jail in Lower Bengal, Lower Burma, or Assam must not be tried by so high a standard in this particular matter as a jail in the Punjab or Sind. With regard to pneumonia, on the contrary, a jail in the Punjab or Sind must not be so severely judged as one in Lower Bengal, Lower Burma, or Assam. There is no constant inverse relation between dysentery and pneumonia; but it may be stated that in the six years 1891-96 there were in the Assam and Burma Coast groups between 17 and 18 times as many admissions from dysentery as from pneumonia, whereas in the Central India and Indus Valley groups, the admissions from dysentery were but $1\frac{1}{2}$ times as numerous as those from pneumonia. If the returns of a jail in any part of India show high morbidity and mortality, but especially the latter, from both dysentery and pneumonia, the condition of that jail needs looking into.

The relative prevalence and mortality of dysentery and diarrhœa in the various groups and administrations is displayed in Tables XL and XLI. Bengal, Assam, and the Central Provinces were worst in respect of dysentery and of diarrhœa. The explanation of the low morbidity and absence of mortality from diarrhœa in Madras is the same as for 1895: diarrhœa being considered merely a symptom, cases were returned under the head of the supposed primary disease. Thus, though there were no deaths from diarrhœa in the medical returns, there were 16 deaths from inflammation of the intestine. The Inspector-General of Jails, Madras, has not followed the medical returns; but instead of 91 cases with no deaths among all classes of prisoners, has shown, among convicts only, 669 admissions from diarrhœa with 16 deaths. This practice of the Madras medical authorities, though strictly in accordance with the authorised Nomenclature of Diseases of the Royal College of Physicians, has its inconveniences. In using the table given in paragraph 67 to compare the present of administrations with their past in the matter of diarrhœa mortality this idiosyncrasy of Madras must be borne in mind. In Table LII it is shown that dysentery was least prevalent in January—March, and most prevalent in July—September; and that this was the exact contrary of the behaviour of pneumonia may be seen by a comparison of Table LII with Table LI.

The Inspector-General of Jails, Madras, has invited the attention of medical officers of Madras jails to the advisability of causing the dejecta of dysenteric patients to be regularly disinfected before being buried. Some of the medical officers in Bengal are of opinion that the prophylactic issue of antiperiodics effected a reduction in dysentery as well as in ague. The medical officer of the Hazaribagh jail remarks:—

A very large proportion of all classes of prisoners have at some time or other suffered from malarial dysentery, consequently the slightest fault in cooking or dietary shows itself with wonderful rapidity.

In some of the Central Provinces jails many severe and fatal cases occurred of gangrenous dysentery, which were attributed to privations undergone before imprisonment and due to the prevailing scarcity. The medical officer of the Seoni jail ascribes the prevalence of dysentery to “a natural failure of starved and attenuated digestive systems, improperly if not insufficiently fed for years, to assimilate the too generous jail diet given on admission.”

The Senior Medical Officer, Port Blair, says:—

There has been a great decrease in the admissions and mortality from fever and from bowel complaints. I generally notice that bowel complaints and fevers are apt to prevail at the same time, whether due to similar causes or to the fact that convicts weakened by malarial fevers are more liable to bowel complaints.

95. There were 24 cases returned as beri-beri with 2 deaths, against 49 cases with 4 deaths in the previous year. One case was reported from Burma, 11 with two deaths from Assam, and 12 from Madras. Myingyan had one case, Cachar one, Gauhati three cases with two deaths, Dibrugarh seven cases, Vellore six, and Rajamundry six. The diagnosis of this disease in India has not yet been placed upon a firm footing by pathological research.

96. During the year 141 cases with 2 deaths were returned as due to the parasite *dochmius duodenalis*. The numbers reported from the various jails, groups, and adminis-

Dochmius Duodenalis and other
Intestinal Parasites.

trations may be seen in Table XLIII. The highest numbers were 71 in the Andamans and 53 in the North-Western Provinces and Oudh, 35 of the latter being in Gorakhpur and 17 in Saharanpur. In the predecessor of this report some details were given regarding *dochmius* in the Andamans, and in other former reports *dochmius* at Gorakhpur has been treated of. In his report for 1896 the Senior Medical Officer, Port Blair, says :—

Surgeon-Major R. N. Campbell submitted during the year a special report on the prevalence of the *dochmius duodenalis* in the Settlement, and considers that anæmia among the convicts is to some extent due to this parasite. In a large number of cases I have seen, where the parasite was detected after the administration of thymol, dyspepsia was a more prominent symptom than anæmia, and I have never seen in these cases the well known signs of advanced anchylostomiasis. The self-supporters, from their conditions of life, being tillers of the soil, are specially liable to infection from this parasite. They are, however, a very healthy body of men, and anæmia is almost unknown among them. The mortality among them seldom exceeds 15, and last year was under 10, per mille. Anæmia is very prevalent among the women in the female jail, but very few parasites have been found among them, the disease being due to climatic conditions. They have been found among a considerable number of new arrivals from Indian jails; and I have more frequently detected them in small numbers in the *post-mortem* room in deaths from dysentery and phthisis than from anæmia. In a large number of the cases treated the number of parasites was below ten, and only in a very small proportion did they exceed twenty. While fully aware of the etiological importance of the *dochmius duodenalis* in the causation of anæmia, I consider that here it is more often a complication than a cause of disease, and that the number of parasites is generally too small to produce the pathogenic effects resulting from its prevalence in Assam, Ceylon, Egypt, and other countries.

In the report for 1891, page 78, it was stated that Surgeon-Major Dobson in Assam had found the *dochmius duodenalis* in men from various parts of India who appeared to be in perfectly good health. Two German observers ⁽²⁾ have lately found that in negroes also the parasite may be present without causing any symptoms of disease. They found the worm in 21 out of 23 cases examined. The same parasite has been found in the island of Santa Lucia, West Indies, ⁽³⁾ among the Indian coolies. Some statistics of the *dochmius* in India itself have lately been published. ⁽⁴⁾

It will be noticed in Table XLIII that Cannanore jail had no fewer than 126 admissions due to the presence of intestinal parasites; and regarding this jail the Inspector-General of Jails, Madras, writes :—

The remarkable reduction in the sickness and mortality of the Cannanore Central Jail deserves special notice. It is unquestionably due to the care and skill of Surgeon-Captain Fearnside, and has been materially influenced by his discovery (for it really merits the name) of the great prevalence of intestinal parasites on the west coast, and of the large part they there play in the causation of disease. With one exception (1884) the death rate of 1896 in the Cannanore Central Jail is the lowest in the last twenty-five years, and the death rate from bowel affections (1.56 per thousand) is actually the lowest. A monograph by Surgeon-Captain Fearnside on intestinal parasites found in Malabar is in the press.

97. Ten cases with four deaths were returned as *kala azar* from the jails of Assam, nine of them from the Nowgong jail.

Kala Azar.

These nine cases are, however, stated to have been of ankylostomiatic origin; whereas the latest researches, as will be more fully related in Section VI, indicate that *kala azar* proper is not ankylostomiasis but a form of malarial fever.

98. Cases of guinea-worm were, as usual, most frequent in Southern India and the Deccan. The administrations with the greatest number of cases were Madras and Bombay. The number of admissions in individual jails may be seen in Table XLIII.

99. The Punjab administration had the highest admission ratio from abscess, ulcer, and boil; and in the case of individual jails of over 100 strength the highest ratios were those of Narsinghpur, Shwegyin, Rawalpindi, Lahore Central, and Bannu. Narsinghpur, Rawalpindi, and Lahore Central were also in this list in last report. There were only 9 cases, with 1 death, of slough or phagedæna over all the jails of India; and there were not (Table XLIII) more than 3 cases in any one jail.

100. The following table shows that the lustre 1892-96 was more healthy than its predecessor, and that mortality from all the causes shown, except phthisis, was reduced for the jails of India as a whole:—

YEAR.	Strength.	RATIO PER 1,000.									
		Admissions into hospital.	Constantly sick.	DEATHS FROM							
				Cholera.	Remittent fever.	Dysentery.	Diarrhœa.	Respiratory diseases.	Phthisis pulmonalis.	Anæmia and Debility.	All causes.
1887—91	459,442	1,134	38	3·53	1·68	6·80	3·29	6·15	2·45	1·98	34·11
1892—96	523,288	1,058	41	1·97	1·25	6·59	2·12	5·59	2·71	1·81	29·77
1896	110,090	983	41	1·27	1·07	5·91	1·98	5·28	3·07	1·43	27·69

As the central prisons are those in which sanitary carefulness has the best chance of proving its beneficialness, a similar table is next added dealing with them:—

YEAR.	Strength.	RATIO PER 1,000.									
		Admissions into hospital.	Constantly sick.	DEATHS FROM							
				Cholera.	Remittent fever.	Dysentery.	Diarrhœa.	Respiratory diseases.	Phthisis pulmonalis.	Anæmia and Debility.	All causes.
1887—91	192,841	985	36	4·71	1·13	5·75	3·34	5·58	2·63	1·89	32·79
1892—96	234,520	940	40	1·74	·58	4·72	1·14	4·41	3·59	1·21	24·56
1896	49,680	849	38	·26	·42	4·41	·95	4·21	4·11	·81	21·50

Here also the health of the second quinquennium was better than that of the first, and the ratio of mortality from each cause shown, again with the exception of phthisis, reduced. If now for the first lustrum the ratios of the central jails be compared with those of the jails of India as a whole, it will be found that the general ratios were lower in the central jails, as well as the death rates from remittent fever, dysentery, respiratory diseases and debility; whereas the death rates from cholera, diarrhœa and phthisis were higher in the central jails. In the second five-year period all the ratios were lower in the central prisons, except the death rate from phthisis. The general conclusion is that, except with regard to tuberculosis, the central prisons are more healthy than the

jails as a whole, and more healthy than in the past; and that this exception seems to indicate a want of sufficient fresh air for each prisoner.

101. A table is, as usual, here given to compare the mortality of prisoners in 1896 with that of soldiers. Taking the death rate of European troops as unit, the death rate of native troops will be represented by 0·7, and the death rate of prisoners by 1·9. The mortality of prisoners was comparatively high as regards cholera, bowel complaints, spleen diseases, anæmia and debility, respiratory diseases, and tubercle of the lungs. Only from fevers was the European soldiers' mortality highest. The enormously greater liability of the prisoners to death from bowel complaints is well shown in the table. Taking the mortality of the native troops from fevers as 1, that of the prisoners is 1·4, and that of the European troops 4·2. Taking the mortality of the native troops from bowel complaints as 1, that of the European troops is 1·2, and that of the prisoners 14·1. Taking the mortality of the European troops from respiratory diseases as 1, that of the native troops is 4·8, and that of the prisoners 6·9. While the liability of the native soldiers to die from respiratory diseases was less than that of the prisoners, yet these diseases made up a larger percentage of the total deaths among native soldiers than among prisoners. The chief cause of death among European troops was fevers, among native troops respiratory diseases, and among prisoners bowel complaints. Of course, for obvious reasons, too much must not be made of the comparison here instituted:—

CAUSES OF DEATH.	DIED PER 1,000 OF AVERAGE STRENGTH.			RELATIVE LIABILITY IN PERCENTAGES.				PERCENTAGE IN DEATHS FROM ALL CAUSES.		
	European troops.	Native troops.	Prisoners.	European troops.	Native troops.	Prisoners.	Total 100.	European troops.	Native troops.	Prisoners.
Cholera	·89	·69	1·27	31	24	45	100	6·0	6·7	4·6
Fevers*	6·81	1·61	2·19	64	15	21	100	45·9	15·8	7·9
Bowel complaints	·68	·56	7·89	7	6	86	100	4·6	5·5	28·5
Spleen diseases	·01	·02	·14	6	12	82	100	·1	·2	·5
Anæmia and debility	·01	·18	1·43	1	11	88	100	·1	1·8	5·2
Respiratory diseases	·77	3·72	5·29	8	38	54	100	5·2	36·4	19·1
Tubercle of the lungs†	·64	·65	3·07	15	15	70	100	4·3	6·4	11·1
All other causes	5·03	2·77	6·41	35	19	45	100	33·8	27·2	23·1
ALL CAUSES	14·84	10·20	27·69	28	19	53	100	100·0	100·0	100·0

* Enteric, intermittent, remittent, and simple continued fevers.

† Includes acute and chronic pneumonic phthisis.

Papers quoted in Section IV.

For explanation of abbreviations see end of Section II.

- (1) Petersen, D. M. W., 1896, No. 36, quoted in C. B. XX., page 810; Heubner, Jahrbuch für Kinderkrankheiten, N. F. XLIII-1, quoted in C. B. XX, page 922; Schlesinger, Kaufmann, Berdach in M. M. W. of 27th October 1896, quoted in B. M. J. of 6th February 1897, epitome-page 21; Henke in Arbeiten aus dem path-anat. Institut zu Tübingen II-2, 1896, page 279, quoted in C. B. XXII, page 59; Rœmheld in M. M. W., 1897, No. 23, page 603, quoted in C. B. XXII, page 135.
- (2) Zinn and Jacoby in B. K. W. of 7th September 1896, quoted in B. M. J. of 23rd January 1897, epitome-page 13, and also in C. B. XXI, page 215.
- (3) A writer in B. M. J. of 11th September 1897; Manson in B. M. J. of 9th October 1897, page 985.
- (4) Fink in I. M. G. of August 1897, page 297; a writer in Lancet, of 2nd October 1897, page 872.

SECTION V.

VITAL STATISTICS OF THE GENERAL POPULATION.

102. It has frequently been indicated that the figures with which this chapter deals are approximately accurate in respect of only a few provinces. Matters are, however, improving, and a retrospect is encouraging, while there are signs of further improvement in the near future.

General Remarks.

In Bengal ten years ago, births were registered in only 45 towns,* and the birth-rate obtained was only 21·04 per thousand of their population; in 1896, births were registered throughout the province, except in a few tracts, and the millesimal rate obtained was 38·03. In Assam and Lower Burma, the birth-rates have risen from 27·55 and 22·57 per mille, respectively, in 1886, to 33·69 and 32·27 in 1896. In the Punjab there was less room for improvement, but the 39·47 per mille registered in 1886 has risen to 43 in 1896, and the percentage of male to female births, though still the highest in the country, has fallen from upwards of 115 to 110·1.

A notable advance towards improvement in the collection of vital statistics has been made in the North-Western Provinces, where an important resolution dealing with sanitation has been issued by the Local Government. This resolution, which will be found as an appendix to Chapter IX, is primarily concerned with the reconstitution of the Sanitary Board of the province, but is certain to have far-reaching effects on the advance of sanitation generally, and the quality of registration will share in the improvement.

The registration of births is peculiarly defective in towns, and, in nearly every province, the average of the urban is lower than the average of the rural birth-rates. The birth-rates in rural areas, no doubt, gain at the expense of the urban rates on account of the custom of women who have been born in the country leaving their residences in the towns and going to their parent's homes in the country when about to become mothers. But neglect to register is the principal cause of low urban rates, and it is astonishing that Local Governments should appear to acquiesce in the practical disregard of the laws which they have prescribed.

There are obvious reasons why the death-rates should be less likely to suffer from neglect than the birth-rates, and death-rates are generally higher in the towns than in the rural circles. It is important, especially in towns, that we should know, not only how many persons have died, but that our knowledge of the diseases which have caused the deaths should be much more precise than it is. The practical utility of such information increases with the size and importance of the town, and in seaports such information in the interests of the public health and prosperity is almost indispensable. The necessary knowledge cannot be obtained without the employment of a sufficient

* The more extended registration of earlier years was limited on account of its extreme imperfection.

professional agency, and this will cost money. It may be hoped that the time is not far distant when such agencies will be established.

For the present returns are useful mainly for purposes of comparison, and are based on the population totals obtained at the last Census. In their reports some of the provincial Sanitary Commissioners give calculations showing the rates based on the estimated actual population. In a few provinces such calculations are useful and interesting; in others they serve only to magnify existing errors of omission.

103. The following statement exhibits a comparison of the principal features of birth registration in the various provinces in 1895 and 1896 :—

Births.

Birth Statistics.

PROVINCE.		Number of municipalities and towns in which births were registered.	Number of rural circles in which births were registered.	POPULATION UNDER REGISTRATION.			NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			HIGHEST BIRTH-RATE.		LOWEST BIRTH-RATE.		MEAN BIRTH-RATE DURING PREVIOUS 5 YEARS.				
				In municipalities and towns.	In rural circles.	TOTAL.	In municipalities and towns.	In rural circles.	TOTAL.	In municipalities and towns.	In rural circles.	TOTAL.	In municipalities and towns.	In rural circles.	In municipalities and towns.	In rural circles.	In municipalities and towns.	In rural circles.	TOTAL.		
Bengal	.	{	1895	147	554	3,447,166	67,623,067	71,070,233	82,442	2,376,181	2,458,623	23'91	35'13	34'59	44'17	65'00	5'49	17'37	22'63	Not	stated.
			1896	147	554	3,435,254	67,634,979	71,070,233	89,941	2,613,545	2,703,486	26'18	38'64	38'03	50'80	78'17	7'61	15'37	23'54	Not	stated.
Assam	.	{	1895	21	59	108,931	4,912,153	5,021,084	2,676	152,955	155,631	24'57	31'14	31'00	53'86	56'40	8'58	14'41	22'04	29'85	29'69
			1896	21	59	106,397	4,914,687	5,021,084	2,935	166,237	169,172	27'59	33'83	33'69	43'95	51'95	11'44	16'19	22'77	30'54	30'38
North-Western Provinces and Oudh.		{	1895	493	899	5,258,468	41,646,323	46,904,791	209,312	1,427,923	1,637,235	39'80	34'29	34'90	112'64*	137'25*	4'85	11'26	31'52	38'20	37'47
			1896	492	897	5,257,778	41,647,013	46,904,791	206,619	1,453,768	1,660,387	39'30	34'91	35'40	86'33	71'65	5'24	10'91	38'45	36'83	36'99
Punjab	.	{	1895	151	446	2,013,969	18,540,013	20,553,982	80,487	821,097	901,584	40'0	44'3	43'9	60'6	221'7†	16'9	8'6	37'3	37'4	37'4
			1896	151	447	2,013,969	18,540,013	20,553,982	82,124	802,568	884,692	40'8	43'3	43'0	58'1	339'0†	16'7	7'8	38'1	39'1	39'0
Central Inces.	Prov.	{	1895	72	160	811,710	8,689,691	9,501,401	25,202	292,230	317,432	31'05	33'63	33'41	70'76	54'01	14'00	16'21	Not	stated.	39'39
			1896	72	160	811,710	8,689,691	9,501,401	25,191	276,236	301,427	31'03	31'79	31'72	59'43	51'09	15'20	13'33	Not	stated.	38'39
Berar	.	{	1895	37	67	346,399	2,496,823	2,843,222	13,905	92,047	105,952	40'1	36'9	37'2	50'3	53'0	22'4	15'2	Not	stated.	39'3
			1896	37	67	346,399	2,496,823	2,843,222	13,197	95,816	109,013	38'0	38'3	38'3	46'5	58'3	27'8	26'1	Not	stated.	38'8
Lower Burma		{	1895	35	94	572,636	3,943,963	4,516,599	13,985	117,162	131,147	24'42	29'71	29'04	99'95	75'07	11'56	10'44	Not	stated.	24'48
			1896	35	184	588,369	3,926,404	4,514,773	14,812	130,876	145,688	25'17	33'33	32'27	47'51	73'96	10'51	8'02	Not	stated.	25'65
Madras	.	{	1895	92	179	2,526,775	31,039,067	33,565,842	84,984	891,588	976,572	33'6	28'7	29'1	53'0	43'1	7'1	0'9	30'0	26'5	26'7
			1896	92	179	2,526,775	30,194,492	32,721,267	86,897	893,084	979,981	34'4	29'5	29'9	56'9	44'4	9'0	10'8	31'2	26'5	27'2
Bombay	.	{	1895	63	221	2,304,373	16,515,973	18,820,346	66,888	607,416	674,304	29'04	36'78	35'83	57'99	63'03	11'34	12'61	28'24	37'14	36'04
			1896	63	221	2,304,373	16,515,973	18,820,346	68,228	623,619	691,847	29'61	37'76	36'76	61'46	63'54	8'20	11'02	28'37	36'40	35'41
Coorg	.	{	1895	5	5	15,511	157,544	173,055	237	4,330	4,567	15'28	27'48	26'39	35'80	33'82	9'24	16'82	Not	stated.	21'34
			1896	5	5	15,511	157,544	173,055	224	4,382	4,606	14'44	27'81	26'62	29'63	33'82	7'96	20'38	Not	stated.	23'60

* The abnormal rates are probably due to the incorrectness of the population figures of certain circles. The question has been referred to the district authorities.
† There is evidently some mistake in population.

As in previous years the Punjab is at the top of the list with the highest registered birth-rate, while Madras and Coorg are at the bottom. In the North-Western Provinces, the Central Provinces and Berar, the birth-rates are lower than the average of the rates recorded in the previous five years, but in all provinces, except the Punjab and the Central Provinces, higher rates were obtained in 1896 than in 1895, the improvement in Bengal and Lower Burma being specially noteworthy. Except in the North-Western Provinces, Berar and Madras, higher rates were obtained in rural areas than in town circles of registration.

104. The next statement shows the mortality in the town and rural circles
Deaths. of the different provinces in 1895 and 1896 :—

Death Statistics.

PROVINCE.		Number of municipali- ties and towns in which deaths were registered.	Number of rural circles in which deaths were registered.	POPULATION UNDER REGISTRATION.			NUMBER OF DEATHS REGISTERED.			RATIO OF DEATHS PER 1,000 OF POPULATION.			HIGHEST DEATH-RATE.		LOWEST DEATH-RATE.		MEAN DEATH-RATE DURING PREVIOUS 5 YEARS.		
				In municipalities and towns.	In rural circles.	TOTAL.	In municipalities and towns.	In rural circles.	TOTAL.	In municipalities and towns.	In rural circles.	TOTAL.	In municipalities and towns.	In rural circles.	In municipalities and towns.	In rural circles.	TOTAL.		
Bengal	{ 1895	147	554	3,447,166	67,623,067	71,070,233	118,790	2,112,668	2,231,458	34'46	31'24	31'39	59'44	70'50	12'68	16'37	30'06	28'93	28'99
	{ 1896	147	554	3,435,254	67,634,979	71,070,233	124,154	2,304,676	2,428,830	36'14	34'07	34'17	58'30	68'36	15'70	13'40	32'32	30'59	30'67
Assam	{ 1895	21	59	108,931	4,912,153	5,021,084	4,728	164,576	169,304	43'40	33'50	33'72	72'55	50'14	14'74	16'82	33'71	30'29	30'36
	{ 1896	21	59	106,397	4,914,687	5,021,084	4,035	178,382	182,417	37'92	36'30	36'33	68'06	72'07	18'31	15'23	36'63	31'66	30'17
North-Western Provinces and Oudh.	{ 1895	493	899	5,258,468	41,646,323	46,904,791	175,923	1,190,520	1,366,443	33'46	28'58	29'13	75'64	136'85	7'38	6'56	31'59	33'56	33'34
	{ 1896	492	897	5,257,778	41,647,013	46,904,791	205,620	1,357,274	1,562,894	39'11	32'59	33'32	114'12	125'31	16'07	16'40	36'48	31'72	32'20
Punjab	{ 1895	151	446	2,013,969	18,540,013	20,553,982	67,913	534,059	601,972	33'7	28'8	29'3	55'3	88'8	11'6	5'9	41'5	36'8	37'3
	{ 1896	151	447	2,013,969	18,540,013	20,553,982	69,381	578,718	648,099	34'4	31'2	31'5	48'96	192'0	23'65	5'4	39'3	34'0	34'5
Central Inces.	Prov- { 1895	72	160	811,710	8,689,691	9,501,401	31,505	317,632	349,137	38'81	36'55	36'75	89'69	70'35	16'73	17'05	29'94	Not stated.	32'91
	{ 1896	72	160	811,710	8,689,691	9,501,401	39,609	428,860	468,469	48'79	49'35	49'31	172'21	102'73	18'95	21'41	31'72	33'94	33'76
Berar	{ 1895	37	67	346,399	2,496,823	2,843,222	16,078	125,859	141,937	46'4	50'4	49'9	76'0	73'1	32'9	29'8	Not stated.	35'5	35'4
	{ 1896	37	67	346,399	2,496,823	2,843,222	15,255	109,532	124,787	44'0	43'8	43'8	65'7	62'0	23'5	29'8	Not stated.	39'0	38'8
Lower Burma	{ 1895	35	94	572,636	3,943,963	4,516,599	15,615	85,545	101,160	27'27	21'69	22'40	58'58	70'45	9'64	7'16	Not stated.	20'73	
	{ 1896	35	184	588,369	3,926,404	4,514,773	16,673	90,014	106,687	28'34	22'93	23'63	43'36	51'80	10'22	4'47	Not stated.		
Madras	{ 1895	92	179	2,526,775	31,039,067	33,565,842	68,738	589,981	658,719	27'2	19'0	19'6	42'9	36'5	5'7	0'9	28'8	19'9	20'6
	{ 1896	92	179	2,526,775	30,194,492	32,721,267	73,463	602,324	675,787	29'0	19'9	20'6	72'4	33'3	6'6	11'3	29'0	19'7	20'7
Bombay	{ 1895	63	221	2,304,373	16,515,973	18,820,346	71,855	466,685	538,540	31'18	28'26	28'61	69'86	50'28	13'03	9'07	31'94	28'42	29'48
	{ 1896	63	221	2,304,373	16,515,973	18,820,346	85,740	510,732	596,472	37'21	30'92	31'69	60'00	50'35	12'21	10'41	32'22	29'20	29'57
Coorg	{ 1895	5	5	15,511	157,544	173,055	541	4,532	5,073	34'88	28'77	29'31	64'09	34'37	12'87	22'83	Not stated.	25'61	
	{ 1896	5	5	15,511	157,544	173,055	503	4,071	4,574	32'43	25'84	26'43	56'89	29'49	21'19	22'37	Not stated.	26'26	

The highest death-rate was recorded in the Central Provinces, the next highest in the adjoining province of Berar, and the lowest in Madras. In all provinces, except Berar and Coorg, the death-rates were higher than in the preceding year, and in all, except the Punjab and Madras, they were higher than the average of the previous five years. The average death-rate in the towns was higher than the average in rural areas in every province, except the Central Provinces.

The following table shows the monthly incidence of mortality from all causes in each province :—

Statement showing the Deaths from all causes, according to Months, in the different Provinces of India during the year 1896.

PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	RATIO OF DEATHS PER 1,000 OF PO- PULATION.	
														1896.	1895.
Bengal	200,365	205,831	279,982	227,612	195,891	233,100	166,607	183,902	170,143	156,233	194,405	214,759	2,428,830	34'17	31'39
Assam	16,062	13,809	14,543	13,171	15,984	17,104	14,128	13,253	13,199	15,224	18,292	17,648	182,417	36'32	33'72
North-Western Provinces and Oudh.	130,825	113,913	127,332	129,043	144,310	120,766	111,389	131,838	140,612	144,757	126,702	141,407	1,562,894	33'32	29'13
Punjab	88,342	57,478	51,386	46,068	54,135	50,997	46,438	47,639	51,611	52,468	51,084	50,453	648,099	31'53	29'29
Central Provinces	31,076	33,035	33,594	38,257	44,046	38,394	35,258	50,098	47,195	46,190	35,977	35,348	468,469	49'31	36'75
Berar	10,573	10,477	13,263	16,119	13,375	6,196	9,699	11,796	10,839	9,104	6,832	6,514	124,787	43'8	49'9
Lower Burma	8,421	7,197	6,976	7,629	8,021	8,710	11,207	10,788	10,027	8,679	9,365	9,667	106,687	23'63	22'40
Madras Presidency	57,898	48,357	49,594	45,677	51,136	48,706	56,441	59,052	59,694	59,602	60,417	79,213	675,787	20'6	19'6
Bombay	53,764	50,122	52,835	49,606	52,538	46,951	58,948	58,903	44,082	40,961	41,040	46,722	596,472	31'69	28'61
Ajmere-Merwara	2,007	1,932	2,293	1,711	1,193	733	770	1,096	921	869	885	911	15,321	28'25	26'95
Coorg	335	297	343	274	407	468	498	494	421	306	334	397	4,574	26'43	29'31
Mysore	5,133	5,029	5,817	5,267	5,681	5,315	5,951	5,932	5,472	6,134	6,700	6,375	68,806	14'21	13'69
TOTAL	604,801	547,477	637,958	580,434	586,717	577,440	517,334	574,791	554,217	540,527	552,033	609,414	6,883,143		

In India as a whole in 1896 the number of deaths recorded was greater in each of the first nine months and less in October, November and December than in 1895. A comparison with the average number of deaths recorded throughout the country, month by month, in the last five years shows that while the numbers of deaths in the first nine months of 1896 were in every instance much above the average, the numbers registered in the last three months were greatly below it.

105. In Bengal the year 1896 was particularly unhealthy both on account of abnormal meteorological conditions and the consequent scarcity in many parts of the province, which led to high prices of food-grains everywhere.

In Bengal towns registration is compulsory, the work being performed by the town police. Since 1892, the statistics regarding rural areas have been collected by the village watchmen and registered by them at police stations and out-posts. From all districts it is reported that magistrates and sub-divisional and police officers have been careful to look into registration while on tours of inspection. The inspectors of vaccination were employed in checking entries in registers; they examined entries relating to 204,424 births and 152,245 deaths, detecting omissions in 1'35 per cent. of the former and 1'12 per cent. of the latter. Omissions were brought to the notice of the magistrate and police-officer and the defaulters punished when the occasion required it. The number of persons fined for neglect was 1,969, and the amount realised as fines Rs 2,857-1-0, against 2,049 and Rs 3,153-14-0 respectively in 1895; while 408 persons were let off with a warning, against 427 in the previous year.

The number of births recorded was 2,703,486 against 2,458,623 in 1895, and the birth-rate was 38'03 against 34'59 in the previous year. This rate, although still far behind the estimated provincial birth-rate of 50 per mille, exhibits a very satisfactory improvement in registration. Among the districts, the highest rates were recorded in Noakhali 48'98, Faridpur 47'02, and Tippera 45'66; the lowest in the 24-Parganas 25'82, Hooghly 26'87, and Burdwan 31'11.

In rural areas where the rates varied between 78·17 per mille in Phulbaria, in Mymensingh, and 15·37 in Burdwan rural circle, the average was 38·64, against 26·18 in the towns. In 22 rural areas the rates were over 50, and in 63 others over 45 per mille. In eleven towns, as compared with only four in 1895, the rates were above 40 per mille. The highest rates were 50·80, recorded in Jamalpur, 47·45 in Bajitpur, and 44·43 in Madaripur; the lowest were 10·37 in Maniktola, 10·15 in Nalchiti, and 7·61 in Jhalakati, in Backergunge; although the rates in Maniktola and Jhalakati are higher than in 1895, the rate in Nalchiti is much lower, and in all these towns the rates are lower than the quinquennial averages.

The proportion of male to female births was 106 to 100, the percentage of male births varying in the districts between 114 in the 24-Parganas and 103 in Noakhali; in the towns, between 157 in Jhalakati and 78 in Barisal; and in rural areas, between 133 in Asanpur (Murshidabad), and 89 in Manihari (Purnea). The largest number of births was recorded in the month of March, and the smallest number in July.

The number of deaths registered was 2,428,830, as compared with 2,231,458 in 1895, and the death-rate was 34·17 per mille, against 31·39 in the previous year, and 30·67, the mean of the previous five years.

The highest district death-rates were registered in Darjeeling 51·43, Muzaffarpur 46·70, and Backergunge 43·82; while the lowest were recorded in Singhbhum 25·55, Puri 24·88, and the Sonthal Parganas 23·76. The highest rate obtained in any rural area was 68·36, in Falakata in Jalpaiguri, and the lowest 13·40, in Netrokona, in Mymensingh, the average, 34·07, being slightly lower than the average of town circles, 36·14. The towns in which the highest death-rates were recorded were Bhadreswar 58·30, Bettiah 57·46, and Kotrung, in Hooghly, 56·15; those in which the lowest rates were registered were Arrah 16·20, Raghunathpur 15·92, and Maniktola 15·70. One of the lowest birth-rates was registered in Maniktola, and it is partly explained by the disparity of females among the population, but the low death-rate must be explained by defective registration.

Among Hindus and Muhammadans the death-rates were nearly alike, 34·54 and 34·26 per mille, respectively; among Buddhists and "other classes" the rates were also similar, 27·64 and 27·58, while among a population of upwards of 190,000 Christians the rate was 19·99 per mille.

The effect of the meteorological abnormality on the public health is well brought out in a table given by the Sanitary Commissioner, in which the monthly death-rates of 1896 are compared with the rates for 1895 and with the average of the five years 1891-95.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ratio per mille in 1896 . . .	2·81	2·89	3·93	3·20	2·75	3·27	2·34	2·58	2·39	2·19	2·73	3·02	34·17
Ditto ditto in 1895 . . .	2·76	2·04	2·16	3·10	2·31	1·96	2·20	2·20	2·40	2·70	3·15	4·34	31·39
Ditto ditto in 1891-95 . . .	2·63	2·13	2·47	2·65	2·42	2·01	2·15	2·37	2·26	2·77	3·24	3·52	30·67
Increase or decrease as compared with 1895 . . .	·05 I	·85 I	1·77 I	·10 I	·44 I	1·31 I	·14 I	·38 I	·01 D	·51 D	·42 D	1·32 D	2·78 I
Increase or decrease as compared with 1891-95 . . .	·18 I	·76 I	1·46 I	·55 I	·33 I	1·26 I	·19 I	·21 I	·13 I	·58 D	·51 D	·50 D	3·50 I

I for increase.

D for decrease.

In every month except October, November and December, the death-rates were higher than the quinquennial means, the excess being greatest in March and June. This excess is mainly due to the large number of deaths which were recorded as due to fever in these months, while cholera was particularly prevalent from March to June inclusive. On the other hand, the death-rates were lower than the average in the last quarter of the year, due to a falling off in the mortality ascribed to fever.

Infants under one year of age, died at the rates of 247·76 and 198·27 per thousand males and females, calculated on the numbers living at the census of 1891. Boys and girls over one and under five years of age, died at the rates, respectively, of 49·40 and 41·86 per mille. At all age periods the male death-rates were the higher, the average death-rates of males having been 36·98 per mille, and of females 31·38.

106. The number of European seamen who arrived in the port was 17,053 against 18,015 in 1895, and the average daily population in 1896 was 1,124 against 1,431. The total number of deaths was 39 against 40 in the previous year, but, on account of the smaller population, the death-rate was higher, 34·69 as compared with 19·56.

Port of Calcutta.

The average number of the native floating population is calculated to have been 25,630, and 219 deaths among them gave a death-rate of 8·54 per mille, against 4·79 in 1895.

107. The area in which the statistics of births and deaths were collected in Assam remains the same as in previous years namely, the Surma and Brahmaputra valleys and a few selected areas in the Hill districts; the latter, except in the case of the Khasi and Jaintia Hills, being excluded from the general statistics.

Assam.

In the districts of the Surma valley and in Goalpara, the work of registration is carried out by paid *chowkidars*; but in Assam proper the work is performed without payment by village headmen, who are known as *gannburas*. The registers are inspected by the police and vaccination establishments, and the monthly returns of vital statistics are scrutinized in the office of the Sanitary Commissioner, who, when he detects obvious inaccuracies, brings the matter to the notice of the district officer with a view to enquiry being made. The Sanitary Commissioner was not satisfied with the inspection work carried on by the inspectors of vaccination, and in a special circular, drew the attention of Civil Surgeons to the matter, which, however, does not seem to have received at their hands the attention its importance deserves. The quality of the work of inspection done by the police although showing signs of improvement still leaves much to be desired.

Registration of vital occurrences is compulsory in twenty of the towns, but, the provisions of the law seem to be generally neglected for the birth ratios in these towns are, except in four cases, below the provincial average. There were 140 persons prosecuted for neglecting to register, and 103 convictions obtained, against 192 and 142, respectively, in the previous year, and the average penalty imposed was 11 annas and 3 pies.

In the selected villages in the Garo Hills the birth-rate was 37·15 per 1,000, and the death-rate 33·58, against 36·75 and 29·79, respectively, registered in 1895. In Kohima, a similar improvement in registration is apparent, the birth and death-rates having been 28·64 and 25·27 per mille, against 20·21 and 19·09 in 1895.

As might be expected from the conditions under which the statistics are collected, the birth-rates are higher in the Surma valley than in the rest of the province, except Goalpara, but for some reason the difference does not seem to extend to the death-rates. The total number of births registered in the province, excluding the selected areas above mentioned, was 169,172, against 155,631 in 1895, and the birth-rate, which is the highest yet recorded, was 33·69 per mille, against 31·0 in that year, and 30·38, the mean of the previous five years. The highest district birth-rate was 42·71, registered in Goalpara, and this was followed by 38·02 and 33·18, registered, respectively, in Sylhet and Cachar, the two districts of the Surma valley. The lowest rates were 26·36 registered in Kamrup, 25·40 in the Khasi and Jaintia Hills, and 24·57 in Nowgong. In the last named district, where the lowest rate has been registered for years past, the public health has been very bad, but the low rate must be largely due to defective registration. In the rural areas, the recorded birth-rates ranged from 51·95 in Silchar to 17·72 in Mangaldai, and 16·19 in the tea gardens circle in Kamrup; the average was 33·83 against 27·59 in the towns. Among the latter, the highest rates were 43·95 per mille registered in Dibrugarh, 40·19 in North Lakhimpur, and 37·44 in Barpeta; while the lowest rates were 17·55 in Silchar, 13·47 in Dhubri, and 11·44 in Mangaldai. The statement that the low birth-rates in towns is in a measure due to the great excess of the male population is well exemplified in Silchar and Dhubri; while the population of Mangaldai is so small that great fluctuations in the birth-rate must occur.

In the province as a whole there were born 107·44 males for every hundred female infants born. The percentages in the districts varied from 111·13 in Sibsagar to 105·25 in Goalpara; in the towns the variation was very great, ranging from 146·15 in Jorhat, to 58·33 in Hailakandi; while in the rural areas, the variation though not so extensive was very great, from 130·53 in Dum Duma to 63·63 in the tea-garden circle in Goalpara.

The total number of deaths registered was 182,417, against 169,304 in 1895, and the death-rate, which is the highest ever registered in Assam, was 36·33 per mille, as compared with 33·72 in the previous year, and a quinquennial mean of 30·17. Among the districts the highest death-rates were registered in Nowgong 45·70, Goalpara 42·11, and Darrang 40·52, while the lowest were 30·72 in Cachar, 30·06 in the Khasi and Jaintia Hills, and 29·39 in Sibsagar. In Nowgong and Darrang, the death-rates were, respectively, 21·13 and 13·16 per thousand higher than the birth-rates. In rural areas the death-rates recorded ranged from 72·07 in the tea garden circle in Goalpara to 15·23 in Lakhimpur, and the average was 36·30, slightly lower than the average death-rate in towns, which was 37·92. Among the towns the highest death-rates were recorded in Tezpur 68·06, in Dhubri 60·31, and in the small town of Mangaldai, 55·79; while in Sylhet, 26·10, Jowai, 22·29, and Shillong, 18·31, the lowest rates were registered. Among the various sects, by far the largest death-rate, 59·49 per mille, was registered among "other classes," a community numbering nearly half a million. Judging by the extreme variation in the death-rates, 225·35 to 33·84, in the adjoining districts of Darrang and Kamrup, it would appear that persons who are not identified are included among "Other classes". The death-rate of Muhammadans was 36·32, of Christians 35·07, and of Hindus, who constitute about three-fifths of the population, 32·86.

The largest number of deaths were recorded in the months of November and December, and the smallest numbers in April, September and August.

Excluding the population of the Khasi and Jaintia Hills, the death-rates of infants calculated on each thousand living at the census of 1891 were among males 216·29 and among females 195·51 ; among boys and girls between one year and five years the rates were 43·38 and 42·38 per mille, respectively. At the age periods between 15 and 30 only, were the female rates the higher ; the average death-rate having been 37·45 for males and 35·12 for females.

108. In detailing briefly the main features of the registration of vital statistics North-Western Provinces and Oudh. in these provinces in 1896, special account must be taken of the meteorology of that and the preceding year, for in 1895, and, especially, in 1896, these conditions were abnormal.

The early cessation of the monsoon rainfall in 1895, and the failure of the winter rains, caused a contraction of about 19 per cent. of the *rabi* area ordinarily under cultivation in that tract of country in the south of the province known as Bundelkhand. Here distress due to bad harvests of the previous three years, had been extensively prevalent, and, in consequence of this addition to their misfortunes, the people began to suffer acutely. Relief works, which soon developed on an extensive scale, were opened, and by the end of May, the people occupied on these works or receiving gratuitous relief numbered nearly 264,000. Distress was not limited to Bundelkhand, for in the neighbouring district of Allahabad, in Hardoi, Pilibhit, Garhwal and Almora, relief-works on a moderate scale became necessary. With the onset of the rains of 1896, however, distress in these districts ceased, and the pressure of scarcity rapidly diminished in Bundelkhand. There was a severe outbreak of cholera among the relief-workers in Banda ; and in the distressed districts, the death-rates were above the average, but only 26 deaths from starvation were reported.

The monsoon rain of 1896 was deficient in Bundelkhand in June, and in July, the rainfall generally was in defect to a serious extent ; while in September and October, the rains failed altogether. In consequence of deficient rainfall the temperature, save in June, was abnormally high—the greatest excess being noted in September and October. Except in the north of Oudh, in the Meerut Division, and in the portions of the Agra Division, protected by irrigation against drought, the crops withered, and measures to afford assistance to the people had to be undertaken. In Bundelkhand, relief-works were reopened ; in other districts test-works were begun, which in many instances developed into regular relief-works.

The total number of births recorded was 1,660,387, as compared with 1,637,235 in 1895, and the birth-rate, 35·40 per mille, although lower than the mean of the previous quinquennium, 36·99, was higher than the rate recorded in 1895, which was 34·90. Among the districts the highest birth-rates were reported in Etah 52·76, Bulandshahr 51·14, and Agra 49·57 ; while the lowest rates were recorded in Azamgarh 24·0, Dehra Dun 23·05, and Naini Tal 22·11. Low birth-rates were recorded in eastern districts besides Azamgarh, and are attributed, in most instances, rather to the effect of recent agricultural distress and congestion of the population than to defective registration. The birth-rates registered in rural areas ranged from 71·65 per mille in Rasulpur, in Muttra, to 10·91, in Kotdawara, in Garhwal, the average being 34·91, as compared with 39·30 in town circles. Omitting hill-stations and certain other places where exceptional conditions exist, the extremes were rates of 61·41 in

Fatehpur-Sekri, and 26·44 in Lalitpur. In Bareilly, there was a marked improvement in registration and the rate rose from 30·49 in 1895, and an average of 28·87 in the previous quinquennium, to 39·54. In this town, however, an assistant surgeon was specially deputed to the work of improving registration. The success achieved by him may, perhaps, prove an incentive to the authorities of some other municipalities where improvement in registration is greatly needed.

The percentage of male to female births was 108·86, varying in the districts between 113·15 in Dehra Dun and 102·2 in Garhwal.

Registration was tested by revenue, civil and police officers, and members of district boards. The number of birth entries in the registers examined was 144,049, and 2·73 per cent. of omissions were detected; death entries in 130,219 cases were examined and the percentage of omissions discovered among them was 2·37. The vaccination staff examined the entries relating to 233,027 births and 192,173 deaths, and discovered 1·34 and ·73 per cent. of omissions, respectively. Regarding the checking of registers by the vaccination staff the Sanitary Commissioner makes the following observations, quoted because they are of interest in respect of objections which have been made to the use of this agency as an auxiliary in the work of registration:—

* * * * “The chowkidar who keeps the birth and death registers in a village is by far the most useful assistant to the vaccinator. Without him and his aid it is extremely difficult for the last-named official to obtain reliable intelligence as to what children have been born in a village and where they live. The result is that a successful vaccinator would be the last person who would voluntarily report an omission or mistake on the part of the chaukidar, as on the occurrence of his next visit to this village, the chaukidar would either be absent or give little or no assistance. I have never expected any material help, so far as returns go, from this particular checking agency, but it does not follow that it is not useful in practice. Although no report is made of the incident, the mistake is generally rectified on the spot by the chaukidar and the vaccinator together, and the practical result is more accurate registration.”

It is remarkable, that, in spite of the distress that was prevalent in the province, the total number of deaths, 1,562,894, was considerably less than the number of births registered. The death-rate was 33·32 per mille, higher, it is true, than the rate of 1895, which was 29·13, but not much higher than the quinquennial mean 32·20, and very close to the mean of the death-rates of 1893 and 1894, years in which the lowest (24·10) and highest (42·51) death-rates ever recorded in the province were registered. An analysis of the district death-rates shows that in 29, generally the northern and south-western, the rate was higher than the quinquennial average, and in 19, all eastern except Etawah, below it. Seeing that to fevers a death-rate of 25·71 is ascribed, it is interesting to note how far the fever-rates influence the departure from the normal of district rates. In 32 districts the fever death-rates were higher than the average of the preceding five years, and in all cases save four, Allahabad (where the total death-rate was slightly below the average), Farukhabad, Sitapur, and Partabgarh (where the rates were above the average), the divergence from the normal of the total death-rates appears to be due to fever. In Allahabad, where the total death-rate is slightly in excess of the normal in spite of a fever death-rate which is below it, the divergence is due to an excessive mortality from small-pox, which is 4·02 per mille higher than the normal rate of ·08. In Farukhabad and Sitapur, where the total death-rates were slightly below, in spite of fever death-rates above the normal, the divergences were due to the cholera-rates being lower than ordinary. The case of Partabgarh is peculiar; the quinquennial average

death-rate from fever is only 8·55, while the death-rate under "other causes" is very high—by far the highest in 1896 in any district where the fever death-rate is low. Here, also, the low death-rate was due to the comparatively small number of deaths from cholera.

In 13 districts there was more, and in 35 less, cholera than usual. In all districts, except Garhwal, Naini Tal, Kheri, Gorakhpur, Azamgarh, Ghazipur and Ballia the small-pox death-rates were above the average. In 38 districts the deaths attributed to dysentery and diarrhoea were less numerous than usual.

The highest district death-rates were 67·40, 53·56 and 53·22 per mille, recorded, respectively, in Jhansi, Bareilly, and Pilibhit; while the lowest were 23·48, 22·98 and 22·32, registered in Ballia, Ghazipur, and Azamgarh. In rural circles, the rates ranged from 125·31 and 99·55 in Madanpur and Birdha, both in the Jhansi district, to 16·40 in Murdah, in Ghazipur; the average, which was 32·59, was considerably less than the average of town circles, 39·11. In the towns, however, the death-rates were raised by the deaths of the famine-stricken who had sought refuge only to die in the poor-houses. This was the case in Lalitpur (death-rate 114·12), Hardoi (87·97), Mau Ranipur (70·65), Orai (57·23) and Jhansi (53·68); and in all these towns, cholera contributed largely to the death-rates. High death-rates were recorded in Fyzabad-Ajudhya (49·51) and Cawnpore (47·43). The lowest urban death-rates recorded were 25·73 in Baragaon, 20·26 in Purwa, and 16·07 in Mubarakpur.

The ratio of deaths among Muhammadans was 33·51 per thousand and among Hindus 33·31; among "Other classes", the rate was 35·17, while, among the small population of Christians the rate was only 11·96.

The seasonal distribution of the mortality was abnormal. The death-rates followed the normal course, but on a higher level until May, when there was the normal fall till July, and the usual rise in August. The rise in September culminating in October, began, but did not continue; the usual fall in November took place to a lower level than usual, but, instead of the fall continuing in December, the death-rate rose. In short, the curve of the year was normal but on a higher level till May, normal in June, July, and August; the autumn rise failed, and there was a rise, instead of a fall, in December. The Sanitary Commissioner explains the abnormalities by high temperatures, scarcity, small-pox and cholera in the early part of the year; deficient rainfall and absence of the autumnal fever death-rate;—the rise in December being due to the effect of scarcity. This explanation is supported by an examination of the mortuary statements.

As might be expected, the death-rates of infants were high,—241·16 per mille for males and 228·20 for females; boys and girls, between one and five years, died at the rates, respectively, of 57·73 and 54·98 per thousand; at every age period, except 15—30, the male death-rates were the higher; and the average death-rates were 34·68 for males and 31·86 for females, the discrepancy being due, in Dr. Thomson's opinion, to neglect in registering female deaths.

109. Details regarding the measures taken to improve the registration of vital statistics in the Punjab have been given in the reports of recent years. Improvement under present conditions can be secured only by inducing those responsible for the actual registration of births and deaths to take an interest in the work and

Punjab.

carry it out thoroughly, and the frequent inspection of registers by tehsildars, vaccinators and divisional inspectors of registration seems to be a promising method of stimulating this interest, provided that the inspections are thorough and that the practice in recording omissions is uniform. It seems, however, that tehsildars discover, on an average, only one omission in the registers of every five villages, the vaccinators find one omission in every two villages, while the divisional inspectors find three omissions in every village. The number of omissions detected by vaccinators in village registers varies remarkably in different districts, and the Lieutenant-Governor is doubtful whether an omission reported always refers to a single birth or a single death, or only to an error in the register. Arrangements have been made, however, to avoid mistakes of this kind. In the municipal towns, 34 persons were fined for omitting to register births, and 36 for omitting to register deaths, the average amounts of the fines varied from over ₹3 in some places to only one anna in others, and the attention of district magistrates has been drawn to this irregularity.

The total number of births registered in 1896, was 884,692, against 901,584 in the previous year, and the birth-rate was 43·04, slightly lower than in 1895 when it was 43·86, but considerably higher than the quinquennial mean of 39 per mille. Among the districts the highest rates were recorded in Gujranwala, Ferozepore and Jhansi, 51·9, 50·8 and 49·8 per mille, respectively; while the lowest were recorded in Kangra 31·0, Peshawar 30·0, and Simla 17·4. Extraordinarily high birth-rates were registered in the rural areas of Dichkot, Pakhimian and Burki, due, probably, to errors in the numbers of the populations on which the rates were calculated, while in Kotkhai (16·8), in the Simla District, Balakot (11·6) in Hazara, and Domel (7·8) in Bannu, the rates were very low. The average recorded birth-rate in rural areas was 43·3, as compared with 40·8 in the towns. Among the latter, the highest rates were 58·1 returned from Chunian, a small town in the Lahore district, 56·4 from Sialkot, and 55·8 from Jalalpur; the lowest rates were recorded in Buriya, 20·6, Thanesar, 19·1, both in the Umballa district, and Simla, 16·7.

The percentage of male to female births was 110·1, but there were great variations; in the districts the percentages ranged from 136·9 in Peshawar to 106 in Kangra; in the towns from 175·6 in Kila Didar Singh to 75·6 in Pakpattan; and in rural areas, from 200·4 in Rustam, in the Peshawar district, to 87·3 in Nizampur, in Kohat. The smallest numbers of births were registered in April and May, and the largest numbers in October, November and December.

The total number of deaths registered in 1896 was 648,099, against 601,972 in 1895. Owing to the deficient rainfall there was scarcity throughout the province in the latter part of the year. Timely preparations were made to prevent actual famine and only three deaths from starvation were reported—ali in the Ferozepore district. If the scarcity was severely felt, it is not apparent in the death-rate, which was only 31·53, as compared with 34·51, the average of the preceding five years. The death-rate was, however, materially higher than in 1895, also an exceptionally dry year. An examination of the mortuary returns shows that the death-rate of 1896 would have been almost as low as that of the preceding year, 29·29, had it not been for the exceptional mortality in January and February, especially in the former month, when the death-rate was 1·67 per mille in excess of the monthly average rate, which was rather less than 2·63 per mille per annum. The large excess number of deaths which occurred in January are registered under the heading 'fever'

and were probably due to influenza, which appears to have been prevalent in the Punjab in the end of 1895 and beginning of 1896.

The highest district death-rates were recorded in Umballa 40·89, Karnal 40·37, and Kangra 40·28, per mille, and the lowest 24·10 in Muzaffargarh, 23·37 in Dera Ghazi Khan and 22·85 in Gujrat. The death-rates were above the average in 12 districts, and below it in 19. The death-rates in rural areas ranged from 192 per mille in Dichkot* to 5·4 in Domel, and averaged 31·2 per thousand, as compared with 34·4 in towns. Among the latter, the highest death-rates were recorded in Kaithal 48·96, Chunian 47·10, and Bhiwani 45·54, and the lowest in Shahabad (in Umballa) 25·28, Dera Ghazi Khan 25·11, and Sadhaura 23·65.

Among Hindus the death-rate was 32·82 per thousand and among Muhammadans 30·51, the extremes being recorded among Native Christians, 17·31, and "other classes" 96·42. The low rate among Native Christians is due to defective registration, and the high rate among "other classes" is explained by the fact that, while they number only 6,067, the deaths of persons whose religion and caste are unknown are registered under this heading.

The death-rates of infants were 229·14 per thousand living among males, and 223·32 among females. Boys and girls, between one year and five years of age, died at the rates of 47·99 and 53·23 per thousand, respectively. In the age periods, from 5 to 40, the female death-rates were the higher, but over the age of 40, males had the higher rates.

By far the largest number of deaths were registered in January. In February, the number of deaths was considerably higher than the monthly average and in May it was about the average, in all other months it was below; the lowest rates were recorded in April and July.

110. The year in the Central Provinces was one of exceptional drought; with the exception of a few showers in some of the districts in April and May, there was no rain from January to the onset of the monsoon. Although the rainfall of the monsoon was too heavy in some districts, it was on the whole favourable until the end of September, when it died away, and the fairly good rain, which fell in the third week of November, came too late to affect the prospects of the crops in the province.

During the year seed was difficult to obtain on account of previous bad seasons, lands were hard to plough and germination was defective or failed altogether on account of drought,—the autumn crops withered, and in large areas the want of moisture prevented the sowing of winter crops.

The distress, which had been growing in various parts of the province for years, became during 1896 actual famine among the poorer classes of the population, particularly in the northern and central districts, and in Balaghat, Bhandara and Raipur.

The deterioration of the public health, consequent on scarcity, is very apparent in the vital statistics; the birth-rate is the lowest of any in India, except Madras, where registration is extremely bad, while the death-rate is by far the highest.

In the five years ending with 1894, the birth-rate in the Central Provinces was fairly constant; but in 1895 the birth-rate fell to 33·41 per thousand, the lowest in 14 years, and in 1896 it has fallen to 31·72, or 6·67 per thousand lower than the quinquennial mean. The total number of births recorded was

* Where the population has been understated.

301,427, against 317,432 in 1895 and 368,884 in 1894. Comparing the numbers of births recorded in the districts in the three years, it appears that, in the figures of 1895, there was a decrease in 16 districts, and an increase in four, namely, Nimar, Burhanpur, Betul and Chhindwara, while in 1896 as compared with 1895, there was a decrease in 14, and an increase in six districts, namely, Nimar, Burhanpur, Saugor, Jubbulpore, Chanda and Raipur. The provincial Sanitary Commissioner considers the increase apparent rather than real and due to improved registration, consequent on a keener interest in the condition of the people leading to greater zeal on the part of the local registering agencies.

There has been no change in the machinery for the collection of vital statistics in the province, and there was a slight falling off in the number of villages in which registers were checked by native superintendents of vaccination, from 2,801 in 1895 to 2,686. The figures obtained show, if reliance can be placed on the efficiency of the inspections, that the *kotwar's* work of registration is well done, for among 37,000 births there were less than 1 per cent. of omissions, and among 50,000 deaths, less than 2 per cent. Among the districts the highest birth-rates were 44.0, 42.29, and 37.58, recorded, respectively, in Nimar, Burhanpur and Raipur; while the lowest were 23.53, 21.88, and 21.75, recorded in Seoni, Saugor and Damoh. In rural areas the recorded rates ranged from 51.09 in Sohela, in Sambalpur, to 13.33 in Khimlasa, in Saugor, and the average was 31.79, or .76 higher than in the towns. Among the latter the highest rates were recorded in Katol (59.43), a small town in the Nagpur district, Allipur (49.06) and Arvi (46.54), both small towns in Wardha; and the lowest rates were recorded in Sambalpur (16.40), and Rajim (15.20), a small town in Raipur.

The percentage of males born to females in the province generally was 106.68, but in the districts the percentages varied between 113.73 in Saugor, and 100.37 in Sambalpur; in town circles, they ranged from 139.16 in Jubbulpore Cantonment to 73.17 in Burha, in Balaghat; and in rural circles from 126.65 in Itarsi to 92.07 in Behir, in Balaghat.

The total number of deaths registered was 468,469 as compared with 349,137 in 1895, and the death-rate was 49.31, as compared with 36.75 in the preceding year, and an average of 33.76 in the preceding five years.

This mortality has never been approached, except in 1878, when a death-rate of 46 per thousand was registered. In every district in the province, except Burhanpur and Sambalpur, the death-rate exceeded the birth-rate, and in some districts the excess was enormous, *e.g.*, Damoh, where it was 66.53 per mille, Saugor 50.75, Mandla 45.96, and Murwara 40.49. The highest death-rates were recorded in Damoh 88.28, Mandla 73.68, and Saugor 72.63; while the lowest were recorded in Bhandara 36.64, Chanda 36.61, and Sambalpur 30.39. In rural circles the highest rate was 102.73 in Narainganj, and the lowest 21.41, in Sironcha; the average being 49.35, slightly higher than the urban average death-rate which was 48.79, but the latter rate was swollen at the expense of the former by the influx into the towns of moribund immigrants from the rural areas. This was particularly the case at Damoh and Murwara, where the highest death-rates, 172.21 and 156.88, were recorded. The lowest urban rates were 22.16, 20.81 and 18.95 registered, respectively, in Hinganghat, Dhamtari, and Rajim.

The death-rate among Hindus was 42.69, among Muhammadans 43.12, and among "Other classes" 87.34. No explanation of the extraordinarily high death-rate among the "Other classes" is given, but it may perhaps be assumed that, as in the Punjab, the deaths of the unknown are included. The

greatest numbers of deaths were registered in August, September and October, and the least in January, February and March. The average monthly death-rate was 4·1 per thousand per annum, and the extreme fluctuations were recorded in January 3·27 and August 5·27. Among infants the death-rates per 1,000 living were for males 381·43, and for females 332·50; while boys and girls, between the ages of one year and five, died at the rates of 60·70 and 50·23. It is worthy of note that, as in 1895, in every age period the male death-rates were higher than the female death-rates, the average among the former being 53·55 per thousand against 44·95 among the latter.

111. The total number of births registered was 109,013, as compared with 105,952 in 1895, and the birth-rate was 38·3 per mille, against 37·2 in the previous year, and a quinquennial mean of 38·6. In three of the districts, Buldana 44·1, Akola 41·1 and Ellichpur 40·0, rates above the average were recorded, and in the remaining three, namely, Amraoti 37·9, Basim 34·5 and Wun 31·8, the rates were below the average. In rural areas the highest recorded rate was 58·3 in Kingaon Raja, in Buldana, and the lowest 26·1 in Bittergaon, in Basim, the average, 38·3, being slightly higher than the average in town circles, which was 38·0. In the municipal towns the average birth-rate was 37·4 per mille, and ranged from 47·8 in Buldana, to 28·9 in Yeotmal.

In the province as a whole, 105·3 male infants were born for every 100 female infants; the extreme variations of the percentage were 128·7 in the town circle of Patur, in Akola, and 77·4 in the town circle of Morsi, in Amraoti. In the municipal towns, the highest percentage was 111·4 in Amraoti city, and the lowest, 93·7, in Buldana. It is worthy of note that in these towns registration is fairly efficient; in the latter, indeed, the highest birth-rate was recorded. The greatest number of births (11,784) was registered in August, and the least (6,625) in February.

The number of deaths recorded was 124,787, against 141,937 in the previous year, and the death-rate was 43·8, as compared with 49·9 in 1895, and an average of 38·8 in the five years ending with that year. In only two of the districts—Wun, where the rate was 50·5, and Amraoti, where it was 45·6,—were the rates higher than the provincial average; the lowest district rates were 42·1 recorded in Akola, and 38·8 in Buldana. The rates in rural areas varied from 62·0 in Panderkowra, in Wun, to 29·8 in Ansing, in Basim, and averaged 43·8, against 44·0 in town circles. In municipal towns the average rate was 43·3 per thousand, and ranged from 59·5 in Yeotmal to 31·8 in Ellichpur city. Of the various sects, the Muhammadans had the lowest death-rate, 39·1, the Hindus came next with 42·7; among Native Christians, a very small community, 41 deaths gave a death-rate of 83·3, and among "Other classes," the high rate of 78·0 was recorded. It appears that persons of certain low castes, which are included in the census population among Hindus, are apt to be included in the mortuary returns among "Other classes".

The mortality of the first five months of the year was about double the average; in June and July the deaths fell to near the mean; and in August, they fell below it and so remained to the end of the year. This divergence from the normal is believed by the provincial Sanitary Commissioner to be due to the unusually high temperature which prevailed during the first half of the year and lowered the state of the public health, and the exceptionally light rainfall in

the third quarter which reduced to a minimum those monsoon conditions which tend to raise the death-rate.

Among infants under one year, the mortality among males per thousand living at that age in 1891 was 273·0, and among females 233·0; while, among boys and girls between one year and five years of age, the rates were, respectively, 97·5 and 81·5. At all age periods except those between 10 and 30, the female death-rates were the higher. The death-rates according to sexes were 45·5 for males and 42·1 for females.

112. The system under which vital statistics are collected in the Madras Presidency was described in this report for 1893.

Madras.

Since then, no important change has been made in the agency, and after considering the question in 1896, the Government of Madras came to the conclusion that they could not afford to make any radical change in the *personnel*. Sanction was, however, accorded in September to certain changes, which will directly and indirectly further the cause of accurate registration. These were:—

“(1) Candidates for the public service and schoolboys, who were born in municipal towns in which the compulsory system of registration has been in force for many years, should be required, after a certain date, to produce attested extracts from birth registers.

(2) That the number of union and municipal registrars be calculated with reference to the population and area of the municipal towns and unions.

(3) That printed forms (in lieu of existing loose forms) bound into books be supplied to all registrars.

(4) That steps be taken to punish negligence.

(5) That special inducements be offered to all municipal servants for reporting cases of unregistered births or deaths.”

Dr. King also addressed a circular letter to all municipalities directing their attention to the importance, from the sanitary, economic and medico-legal points of view, of insisting on prompt registration. It may be hoped that these measures will secure some improvement in registration which continues to be backward in Madras. In 1896, the birth and death-rates were lower than the rates recorded in any other province.

During the year, the births of 979,981 children were registered equal to a birth-rate calculated on the census population of 29·9 per thousand, as compared with 29·1 in 1895, and 27·2, the mean of the previous five years. There was an increase in 1896 in the birth-rates in 12, and a decrease in 9, of the 22 districts as compared with 1895, while in one district, South Arcot, the rates for both years were equal. As compared, however, with the average of the previous five years, there has been an increase in all districts, except Coimbatore, Kurnool and Trichinopoly. In Ganjam, Vizagapatam and the Nilgiris, a considerable improvement in tracts long notorious for bad registration is recorded. The highest district figures obtained were 39·5 in Chingleput, 34·3 in Bellary, and 33·9 in Kistna, while the lowest were 26·6 in Ganjam, 25·8 in Godaveri, and 22·5 in Malabar. It may be noted that the birth-rate in Ganjam is 8·4 per mille above the average, that in Godaveri 3·4 above the average, while the rate in Malabar, although lower than in 1895, is 1 per mille above the average. In rural areas the recorded rates ranged from 44·4 per thousand in Gajapatinagaram, in Vizagapatam, to 10·8 in the Agency tracts of the Ganjam district; and the average was 29·5, against 34·4 in the town circles. The highest rates recorded in towns were 56·9 in Vaniyambadi, which again heads the list, 50·5 in Tenkasi, and 45·9 in Periyakulam; the lowest rates were 11·3, recorded

in Pithapuram, 9.9 in Samalkot, both towns in the Godaveri district, and 9.0 in Paramagudi, in Madura.

The percentage of male to female births in the Presidency generally was 104.8. Curiously enough, the urban and rural percentages, 105 and 104.8, were approximately the same, although in town circles the percentage varied between 164.6 in Sendamangalam and 76.4 in Paramagudi, while in rural areas the highest was 236.3 in the Settinandal villages, in Madura, and the lowest 85.1 in Cochin. The greatest numbers of births were recorded in July and August, and the least in February.

The number of deaths registered was 675,787 and the death-rate was 20.6, as compared with 19.6 in 1895, and a quinquennial mean of 20.7 per mille. Among the districts the highest rates were 27 and 24.7 per thousand, recorded respectively, in the Nilgiris and Tanjore, while the lowest were 17.1, 16.9 and 15.7, registered in Godaveri, Nellore and Malabar, respectively. In rural areas the rates fluctuated between 33.3 in Coimbatore and 11.3 in Kurumbaranat, the average having been 19.9 per mille, or about 9 per mille less than the urban average, which was 29.0. The highest rates recorded in towns were 72.4 in Kilarai, 53.8 in Vaniyambadi, and 43.0 in Coonoor, while the lowest were 10.1 in Virudupatti, 8.1 in Paramagudi, and 6.6 in Samalkot. In the presidency town the birth-rate was 41.5 and the death-rate 38.2.

The Hindus, who constitute about 90 per cent. of the population, had a death-rate of 21.0 per mille, the Muhammadan death-rate was 18.1, the Native Christian community, numbering 766,987, had a death-rate of 15.1, while the comparatively small population of "Other classes" died at the rate of 9.3.

The lowest death-rate was recorded in April, and by far the highest in December, due chiefly to an enormous rise in the number of deaths from cholera in that month.

The death-rate among male infants was 150.9 per mille and among females 124.7 calculated on the census population of infants.

Among boys and girls between one and five years of age the rates were respectively 24.9 and 22.8. At all age periods, except between 15 and 30, the male death-rates were the higher, the average being 21.4 per mille for males against 19.9 for females.

113. The number of births registered during 1896 was 4,606, against 4,567 in the previous year, and the birth-rate was 26.62 against 26.39 in 1895, and a quinquennial mean of 21.95. The rates obtained in rural areas ranged from 33.82 in Nanjarajpatna to 20.38 in Yedenalknad, the average being 27.81, or more than 13 per mille higher than the average in town circles, which was only 14.44.

It is alleged that the defective birth-rate in Coorg is due to the excess of males among the population; this is no doubt true in a measure, but the excess of males in the urban population is only a fraction per cent. higher than in the rural areas, and yet the birth-rate in the latter is nearly twice as high as it is in the former. In Mercara the birth-rate was only 7.96, as compared with 23.16 in Virajendrapet, but in Mercara the proportion of females is higher than in Virajendrapet; certainly fluctuations in the birth-rate in a small population (7,034) like that in Mercara must be expected, still, as the quinquennial average rate is only 11.57, it must be concluded that defective registration is also to blame for the small recorded birth-rates. The average percentage of male to female births was 97.68, ranging from 133.33 in Mercara, to 62.50 in Somvarpet.

The total number of deaths was 4,574 against 5,073 in the previous year. The death-rate, which for the second time in the history of registration in Coorg, was lower than the recorded birth-rate, was 26·43 per mille, against 29·31 in 1895, and 26·26, the quinquennial mean. In the rural areas, the average death-rate was 25·84, varying between 29·49 in Mercara, and 22·37 in Padinalknad. In town circles, the average death-rate was 32·43, but this is increased at the expense of the rural rates, by the inclusion of the deaths of residents in the latter, who died in the dispensaries in the towns ; for instance, in Mercara the death-rate registered was 22·75, but if the deaths of 45 coolies who died in hospital are omitted, the birth-rate falls to 16·35 ; similarly, in Virajendrapet where the highest death-rate (56·89) was registered, if the deaths of 141 coolies are deducted, the rate falls to 25·18 per mille.

Among Muhammadans the death-rate was 20·61, among Hindus 26·80 and among " Other classes," 31·03. In February, April and October the fewest deaths occurred, and in July the largest number. Among infants under one year of age, the death-rates per thousand living were 260·89 for males and 230·87 for females. Boys between the ages of one year and five died at the rate of 34·09 per mille, and girls at the rate of 30·28. In all age periods, except those between five and 30, the male death-rates were the higher.

114. In the Presidency of Bombay, including Sind, there were registered
Bombay. 691,847 births, against 674,304 in 1895, and the birth-rate rose from 35·83 per mille in that year to 36·76, as compared with a quinquennial average of 35·41.

The highest district birth-rates were obtained in the Collectorates of Ahmednagar 47·55, Khandesh 47·30, and Nasik 46·94, and the lowest in Upper Sind Frontier 26·18, Thar and Parkar 25·47, and Hyderabad 18·35. In rural areas, the highest rate recorded was 63·54 in Nandgaon, in Nasik, and the lowest 11·02, in Tando Bago, in Hyderabad, while the average was 37·76, as compared with an average of 29·61 in town circles. Among the latter, the highest rates were recorded in Vengurla, in Ratnagiri (61·46), Borsad 56·26, and Sangamner, in Ahmednagar, 53·22, while the lowest were registered in the City of Bombay 19·35, Thana 17·18, and Nasik 17·78. In 16 municipalities, rates higher than 40 per mille were obtained.

The percentage of male to female births was 107·92, varying in the districts between 136·93 in Upper Sind Frontier and 101·72 in Bijapur. The excess of male births registered in the districts of Sind is attributed by the local authorities to (a) the greater consequence attached to the birth of a male, and (b) to the desire to prevent female children being vaccinated.

As usual, the least number of births was recorded in February, and the largest number in July.

The total number of deaths registered was 596,472, as compared with 538,540 in 1895, and the death-rate was 31·69 per mille, against 28·61 in the previous year, and 29·57, the mean of the previous five years. The highest district rates were recorded in the Collectorates of Nasik 43·76, Broach 39·98, and Khandesh 39·0, while in Shikarpur 21·91, Thar and Parkar 21·51, and Hyderabad 17·46, the lowest rates were registered. In rural areas, death rates ranged from 50·35 in Nandgaon, to 10·41 in the rural circle of Karachi, the average being 30·92, against 37·21 in the towns. The highest urban death-rates were recorded in Ahmednagar, 60·00 per mille, Nasik, 54·90 and Godhra,

51·19. In Ahmednagar, where the quinquennial mean death-rate, 53·47 per mille, is very high, the death-rate given under "Other causes" is 32·42 per mille; six deaths from plague were recorded. The quinquennial mean death-rate of Nasik is 34·29, and there was an increase of upwards of 20 per mille in 1896; the increase of deaths from fever seems to be the chief cause of the rise; no case of plague was reported. In Godhra, the increase in the death-rate, as compared with the mean, was nearly 18 per mille, accounted for by the prevalence of cholera and small-pox. In the City of Bombay, the death-rate was 40·99 compared with 30·58 in 1895 and a quinquennial mean of 30·77. The death-rates from small-pox and cholera were more than twice the average, the death-rates from fever and dysentery and diarrhœa were higher than usual; while the recorded death-rate under "All other causes" was 25·18 per mille, against 19·51 in 1895, and a quinquennial mean of 19·21. There were 1,936* deaths recorded as due to plague, equal to a death-rate on the estimated population of 2·40 per mille. In short, the death-rate in Bombay was upwards of 10 per mille above the normal; cholera, small-pox, fever and dysentery and diarrhœa account for a little over 4 per mille of the excess, while deaths registered as due to plague account for 2·40.

The lowest urban death-rates were registered in Karwar 19·91, Panvel, 18·62, and Ratnagiri 17·16.

Among the various sects the lowest death-rate, 17·14 per mille, was registered among "Other classes" and the next lowest, 24·70, among Christians. The low death-rate among Muhammadans, 24·48, as compared with the rate among Hindus, 33·74, is accounted for by the fact that the former are about one-fourth as numerous as the latter in the Presidency generally, while they are nearly four times as numerous in the districts of Sind where registration is most defective.

As compared with 1895, deaths registered were more numerous in the first eight months, particularly in February, and less numerous in the last four months of the year. The highest mortality occurred in July and August, and the least in October and November.

Among male infants the death-rate per thousand living was 194·32, and among females 164·47; the corresponding figures in 1895 were 191·04 and 161·92. Among boys and girls between one and five years of age, the rates were, respectively, 56·67 and 53·06 per mille, against 53·56 and 50·99 in 1895. There was some divergence from the normal relation of the death-rates among the sexes in the various age periods. From 5 to 10, 10 to 15, and 15 to 20, the female death-rates were the higher; from 20 to 30 and 30 to 40 the male rates were slightly, and from 40 to 50, they were considerably, the higher. Between 50 and 60 the female death-rate was the higher, after which the male rates were the higher.

115. The area under registration comprises the whole of Lower Burma, except the districts of Northern Arakan, Salween and portions of the districts of Bassein, Toungoo and Thayetmyo, and the population concerned, as determined by the census of 1891, is 4,514, 773. In Upper Burma in only four towns Mandalay, Yamethin, Pyinmana and Myingyan, with an aggregate population of 227,310, are vital statistics registered, but it is intended to extend the system of municipal registration adopted in Lower Burma to all the towns.

* Report of the Municipal Health Officer.

Slight changes in the areas and populations under registration have been made, but not of sufficient importance to require special mention. A change, which is important, has, however, been made in the rural areas. Prior to 1896 the returns for these areas were compiled by townships, but it was found that these units were too large, while village units again were too small; it was decided to adopt the police-station area as a unit, and the rural circles accordingly now correspond to the police-station areas.

In most municipalities and towns, registration is carried out by headmen and elders of quarters. In some towns special paid registrars have been engaged, and in villages the work is entrusted to the headmen. The provincial Sanitary Commissioner considers that the new rules for the collection of the statistics introduced in 1897 are theoretically perfect, and anticipates marked improvement in results when they have been brought into working order throughout the province.

Meanwhile, it is satisfactory to note that the improvement in the registration of vital statistics discernable in recent years has been more than maintained, and that the birth and death ratios are the highest on record. The total number of births registered was 145,688 against 131,147 in 1895, and the ratio per thousand of the population was 32·27, as compared with 29·04 in the previous year, and 25·65, the quinquennial mean.

The highest district birth-rates were 42·84, 41·27 and 40·54 per thousand, recorded, respectively, in Pegu, Sandoway and Tavoy; while the lowest were 28·59, 28·46 and 17·91 recorded in the districts of Thaton, Amherst and Rangoon town. The population of the last is of course urban, and the rate recorded, as in the cases of the other considerable maritime towns of Akyab (13·97), and Moulmein (24·63), was below the urban average (25·17). As the Sanitary Commissioner explains, one of the main causes in determining the low birth-rates in the larger towns is the deficiency of the females in the population. The excess of males is very great in Akyab and Rangoon. This excess is not quite so marked in Bassein and Moulmein; in the former, however, in which the proportion of males is slightly the greater, the birth-rate was 35·62, or nearly 12 per thousand higher than in the latter. In only nine of the 35 towns are the female populations higher than the male; these towns are all small, but in only three, Tavoy, Mergui and Allanmyo, are the birth-rates higher than the provincial average, while in two, Ramree and Thônzé, the rates are lower than the average rate in towns.

In the small populations of rural areas considerable fluctuations in the rates must be expected, but scarcely perhaps so great, as is shown by a comparison of the rates recorded in Tantabin (73·96) and Kyeintali (70·33), with the rates recorded in Paingkyon (12·73) and Talaingdaung (8·02).

In the province as a whole 107 boys were reported to have been born for every hundred girls, but there were great variations in the rates comparing even large district populations, the extreme percentages being 114 in Sandoway and Tavoy, respectively, and 100 in Mergui.

The total number of deaths registered in 1896 was 106,687 against 101,160 in the previous year, and the death-rate which, in 1895, was 22·40 per mille, as compared with a quinquennial mean of 20·73, rose to 23·63.

The highest district death-rates were 28·27 and 27·72 per mille recorded in Pegu and Tharrawaddy, while the lowest were 17·89 and 16·76 recorded in

Amherst and Mergui. The average urban death-rate was 28·34, ranging from 43·36 and 36·31 per thousand in Myaungmya and Rangoon, respectively, to 13·24 and 10·68 in Yandoon and Gyobingauk. In the rural circles, where the average death-rate was 22·93, the rates varied between 28·30 in Tharrawaddy and 15·01 in Amherst.

The infant mortality was 235·9 males per 1,000 living and 169·44 females. Between the ages of one year and five years, 33·60 per 1,000 was the rate among boys, and 28·57 among girls. The male rates were higher than the female at all ages except between 20 and 40. Of the various sects, the Christians had the lowest death-rate (12·69), and the Hindus the highest (25·15), Burmese (23·97), Muhammadans (22·78) and "Other classes" (19·77), occupying intermediate positions. The least mortality occurred in March, and the greatest during July, August and September.

116. The mortality among the native population of the cantonments in the Bengal and Punjab Commands and in the Hyderabad Assigned Districts is shown in the following statement :—

Military Cantonments.

Death-rate amongst Natives in the Cantonments of the Bengal and Punjab Commands and in the Hyderabad Assigned Districts during 1896.

CANTONMENTS.	Died per 1,000 of population.	CANTONMENTS.	Died per 1,000 of population.	CANTONMENTS.	Died per 1,000 of population.
Fort William . . .	16·7	Fatehgarh . . .	29·9	Jutogh . . .	19·7
Alipore . . .	8·0	Agra . . .	25·4	Jullundur . . .	13·7
Dum-Dum . . .	14·9	Muttra . . .	16·4	Dharamsala . . .	11·2
Barrackpore . . .	37·6	Cawnpore . . .	23·4	Amritsar . . .	13·2
Darjeeling . . .	34·8	Allahabad . . .	17·7	Dalhousie . . .	30·6
Buxa . . .	25·3	Jhansi . . .	15·2	Bakloh . . .	10·4
Doranda . . .	63·6	Benares . . .	15·7	Sialkot . . .	10·5
Dinapore . . .	33·0	Gorakhpore . . .	21·6	Meean Meer . . .	13·2
Cuttack . . .	19·2	Lucknow . . .	18·2	Ferozepore . . .	14·1
Cachar . . .	4·3	Fyzabad . . .	16·4	Rawalpindi . . .	9·2
Shillong . . .	13·2	Sitapur . . .	22·2	Campbellpore . . .	27·8
Dibrugarh . . .	13·8	Sutna . . .	...	Murree . . .	45·3
Kohima . . .	24·3	Sipri* . . .	29·3	Jhelum . . .	15·2
Chakrata . . .	28·5	Saugor . . .	35·1	Mooltan . . .	14·6
Landour . . .	24·1	Asirgarh . . .	1·1	Dera Ismail Khan . . .	11·0
Dehra Dun . . .	14·2	Jubbulpore . . .	40·7	Dera Ghazi Khan . . .	16·1
Roorkee . . .	15·3	Pachmarhi . . .	66·4	Edwardesabad . . .	24·3
Meerut . . .	26·6	Kamptee . . .	31·5	Peshawar . . .	10·8
Naini Tal . . .	14·0	Nowgong . . .	53·4	Nowshera . . .	12·5
Ranikhet . . .	49·7	Deoli . . .	22·1	Murdan . . .	11·0
Almora . . .	20·0	Delhi . . .	16·7	Abbottabad . . .	11·6
Lansdowne . . .	61·3	Umballa . . .	16·9	Kohat . . .	4·1
Bareilly . . .	13·4	Kasauli . . .	27·8	Hyderabad Assigned Districts . . .	35·8
Moradabad . . .	19·9	Dagshai . . .	29·6		
Shahjahanpur . . .	35·0	Subathu . . .	31·3		

* For seven months only.

Appendix to Section V.

STATEMENT NO. I.—*Births.*

PROVINCE.	Population under registration.	RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of popula- tion.	Excess of deaths over births per 1,000 of popula- tion.
		Maximum for any one circle.	Minimum for any one circle.	Mean for the province.			
Bengal	71,070,233	78'17	10'15	38'03	106	3'86	...
North-Western Provinces and Oudh	46,904,791	86'33	5'24	35'40	108'86	2'08	...
Punjab	20,553,982	339'0*	7'8	43'0	110'1	11'5	...
Central Provinces	9,501,401	59'43	13'33	31'72	106'68	...	17'59
Berar	2,843,222	58'3	26'1	38'3	105'3	...	5'5
Lower Burma	4,514,773	73'96	8'02	32'27	107	9	...
Assam	5,021,084	51'95	11'44	33'69	107'44	...	2'64
Madras Presidency	32,721,267	56'9	9'0	29'9	104'8	9'3	...
Bombay	18,820,346	63'54	8'20	36'76	107'92	5'07	...
Ajmere-Merwara	542,353	74'33	17'20	32'77	109'19	4'52	...
Coorg	173,055	33'82	7'96	26'62	97'68	0'18	...
Mysore	4,843,523	23'01†	15'24†	18'10	104'83	3'89	...

* There is evidently some mistake in population.
† These refer to districts. They are not shewn by circles.

STATEMENT NO. II.—*Deaths.*

PROVINCE.	Population under registration.	Area in square miles.	Average popula- tion per square mile.	RATIO OF DEATHS PER 1,000 OF POPULATION.			DEATH-RATE PER 1,000.	
				Maximum for any one circle.	Minimum for any one circle.	Mean for the province.	Male.	Female.
Bengal	71,070,233	144,411	492	68'36	13'40	34'17	36'98	31'38
North-Western Provinces and Oudh	46,904,791	107,672	436	125'31	16'07	33'32	34'68	31'86
Punjab	20,553,982	110,463	186	192'0	5'4	31'5	30'9	32'3
Central Provinces	9,501,401	71,582	133	172'21	18'95	49'31	53'55	44'95
Berar	2,843,222	16,068	177	65'7	23'5	43'8	45'5	42'1
Lower Burma	4,514,773	77,099	58	51'80	4'47	23'63	24'38	22'79
Assam	5,021,084	29,433	170	72'07	15'23	36'33	37'45	35'12
Madras Presidency	32,721,267	124,943	270	72'4	6'6	20'6	21'4	19'9
Bombay	18,820,346	124,130	151	60'00	10'41	31'69	32'09	31'27
Ajmere-Merwara	542,358	2,711	200	84'73	19'94	28'25	28'42	28'06
Coorg	173,055	1,583	109	56'89	21'19	26'43	26'31	26'59
Mysore	4,843,523	27,924	173	15'93*	12'64*	14'21	14'59	13'82

* These refer to districts. They are not shown by circles.

STATEMENT NO. III.—*Deaths in Towns and Rural Circles compared.*

PROVINCE.	NUMBER OF REGIS- TRATION CIRCLES.			POPULATION.			DEATHS PER 1,000.		
	Rural.	Town.	Total.	Rural.	Town.	TOTAL.	Rural.	Town.	Total.
Bengal	554	147	701	67,634,979	3,435,254	71,070,233	34'07	36'14	34'17
North-Western Provin- ces and Oudh	897	492	1,389	41,649,382	5,255,409	46,904,791	32'59	39'12	33'32
Punjab	447	151	598	18,540,013	2,013,969	20,553,982	31'2	34'4	31'5
Central Provinces	160	72	232	8,689,691	811,710	9,501,401	49'35	48'79	49'31
Berar	37	67	104	2,496,823	346,399	2,843,222	43'8	44'0	43'8
Lower Burma	184	35	219	3,926,404	588,369	4,514,773	22'93	28'34	23'63
Assam	59	21	80	4,914,687	106,397	5,021,084	36'30	37'92	36'33
Madras Presidency	179	92	271	30,194,492	2,526,775	32,721,267	19'9	29'0	20'6
Bombay	221	63	284	16,515,973	2,304,373	18,820,346	30'92	37'21	31'69
Ajmere-Merwara	17	6	23	418,206	124,152	542,358	26'98	32'53	28'25
Coorg	5	5	10	157,544	15,511	173,055	25'84	32'43	26'43
Mysore	47	20	67	4,543,830	299,693	4,843,523	13'98	17'56	14'21

STATEMENT NO. IV.—Deaths according to age.

PROVINCE.	RATIO PER 1,000.																			
	Under 1 year.		1 year and under 5 YEARS.		5 years and under 10 YEARS.		10 years and under 15 YEARS.		15 years and under 20 YEARS.		20 years and under 30 YEARS.		30 years and under 40 YEARS.		40 years and under 50 YEARS.		50 years and under 60 YEARS.		60 years and upwards.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Bengal	247'76	198'27	49'40	41'86	19'77	16'00	15'32	12'63	20'14	18'10	22'86	19'45	25'48	21'08	33'64	25'82	48'02	39'93	85'09	63'31
N.-W. Provinces and Oudh	241'16	228'20	57'73	54'98	13'77	11'90	9'20	8'64	12'93	16'04	17'35	16'47	22'63	17'71	34'26	27'05	53'81	41'32	71'89	48'63
Punjab	229'14	223'32	47'99	53'23	10'53	11'27	8'17	9'60	9'15	10'59	11'80	12'53	14'79	15'80	21'72	19'02	34'03	28'75	97'56	94'46
Central Provinces	381'43	332'50	60'70	50'23	26'46	21'64	19'17	16'57	29'68	26'03	29'87	22'92	39'97	30'15	55'29	41'30	82'80	66'28	127'57	102'92
Berar	273'0	233'0	97'5	81'5	24'2	21'6	14'8	15'6	15'5	18'1	20'4	21'0	25'3	24'5	37'3	25'5	60'4	48'6	107'4	96'6
Lower Burma	235'90	169'44	33'60	28'57	13'33	12'09	8'44	7'68	10'55	9'95	11'54	13'19	16'30	19'08	20'10	18'75	28'40	23'88	64'78	62'66
Assam	216'29	195'51	43'38	42'38	20'31	16'94	17'69	16'43	25'04	25'87	24'42	25'92	28'43	28'07	36'85	28'96	51'92	43'50	81'67	63'49
Madras Presidency	150'9	124'7	24'9	22'8	8'2	7'5	6'3	6'2	7'8	10'8	9'7	10'4	12'7	11'4	18'3	14'1	30'1	24'7	52'5	47'1
Bombay	194'32	164'47	56'67	53'06	13'65	13'73	9'63	10'85	10'61	12'71	16'73	16'35	19'67	19'58	28'97	22'96	46'57	49'72	93'21	83'79
Ajmere-Merwara	248'99	214'17	71'14	65'44	11'03	10'35	5'80	5'98	7'91	12'56	9'08	10'57	12'45	12'15	20'29	15'71	37'17	32'60	45'87	39'31
Coorg	260'8	230'87	34'09	30'28	8'74	9'15	8'09	9'19	12'78	13'76	18'39	20'34	22'78	21'67	29'40	27'66	39'59	35'75	62'61	50'62
Mysore	82'27	26'72	17'33	14'83	8'20	7'35	8'00	9'31	9'82	13'14	8'93	10'13	11'19	10'74	14'26	12'86	22'31	18'96	37'41	29'11

STATEMENT NO. V.—Deaths according to Cause.

PROVINCE.	DEATHS PER 1,000 IN 1896.							Deaths per 1,000 in 1895.	Deaths per 1,000 in 1894.
	Cholera.	Small-pox.	Fevers.	Dysentery and Diarrhoea.	Injuries.	All other causes.	All causes.		
Bengal	3'19	'18	24'76	'67	'39	4'95	34'17	31'39	34'88
N.-W. Provinces and Oudh	1'47	'91	25'71	'87	'61	3'75	33'32	29'13	42'51
Punjab	0'25	2'19	19'15	0'68	0'35	8'92	31'53	29'29	36'52
Central Provinces	5'58	0'82	29'55	3'14	0'67	9'55	49'31	36'75	37'22
Berar	4'3	'3	21'8	6'2	'3	10'9	43'8	49'9	42'0
Lower Burma	'66	'37	11'41	1'72	'23	9'24	23'63	22'40	23'56
Assam	3'39	1'09	20'18	3'19	'32	8'16	36'33	33'72	30'69
Madras Presidency	1'5	0'3	8'0	0'7	0'3	9'8	20'6	19'6	20'0
Bombay	1'88	0'34	21'90	1'92	0'33	5'32	31'69	28'61	32'26
Ajmere-Merwara	'02	7'05	17'34	'70	'52	2'63	28'25	26'95	31'02
Coorg	0'28	0'10	20'53	1'87	0'32	3'33	26'43	29'31	24'59
Mysore	'43	'99	7'79	'94	'25	3'79	14'21	13'69	12'36

STATEMENT NO. VI.—Deaths from All Causes according to months.

PROVINCE.	RATIO PER 1,000.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Bengal	2'81	2'89	3'93	3'20	2'75	3'27	2'34	2'58	2'39	2'19	2'73	3'02	34'17
N.-W. Provinces and Oudh	2'79	2'43	2'71	2'75	3'08	2'57	2'37	2'81	3'00	3'09	2'70	3'01	33'32
Punjab	4'30	2'80	2'50	2'24	2'63	2'48	2'26	2'32	2'51	2'55	2'49	2'45	31'53
Central Provinces	3'27	3'48	3'54	4'03	4'63	4'04	3'71	5'27	4'97	4'86	3'79	3'72	49'31
Berar	3'7	3'7	4'6	5'7	4'7	2'1	3'4	4'1	3'8	3'2	2'4	2'4	43'8
Lower Burma	1'87	1'59	1'55	1'69	1'78	1'93	2'48	2'39	2'22	1'92	2'07	2'14	23'63
Assam	3'19	2'75	2'90	2'63	3'18	3'41	2'81	2'64	2'63	3'03	3'64	3'52	36'33
Madras Presidency	1'8	1'5	1'5	1'4	1'6	1'5	1'7	1'8	1'8	1'8	1'8	2'4	20'6
Bombay Presidency	2'86	2'66	2'81	2'64	2'79	2'49	3'13	3'13	2'34	2'18	2'18	2'48	31'69
Ajmere-Merwara	3'70	3'56	4'23	3'16	2'20	1'35	1'42	2'02	1'70	1'60	1'63	1'68	28'25
Coorg	1'94	1'72	1'98	1'58	2'35	2'70	2'88	2'85	2'43	1'77	1'93	2'29	26'43
Mysore	1'06	1'04	1'20	1'09	1'17	1'10	1'23	1'22	1'13	1'27	1'38	1'32	14'21

SECTION VI. GENERAL POPULATION.

HISTORY OF CHIEF DISEASES.

Cholera.

117. In this report for the year 1894 an attempt was made to summarise the more important work which had been done, in recent years, towards the solution of the problem of the etiology of cholera.

Cholera.

In the conclusion it was stated that the best known observers in Europe were agreed that the comma of Koch is the principal factor, but that many difficulties remained to be explained; chief among these were immunity of persons and places, and the relationship to the microbe of cholera of the 'cholera-like' vibrios found, chiefly in the autumn, in the waters of European rivers and elsewhere. The statement that cholera is caused by a particular vibrio must remain an assumption until the circumstances under which that vibrio is potent to cause cholera have been discovered. One of the most obvious first steps in this direction is the determination of the relations of the harmless vibrios found in river water, and much research has been devoted to this end. But as experience has grown and knowledge has deepened the explanation of difficulties appears to get further off than ever. One by one the tests which were believed to differentiate the comma bacillus of Koch have been found unreliable, until, in difficult cases, only one remains, the reaction with cholera-serum. Regarding even this test, Dunbar,* who is confident of its scientific value, says that it would be well not to affirm that all vibrios which give a positive reaction are cholera vibrios. On the other hand, he states that one may be certain that any vibrios which fail to give a positive reaction with efficient cholera-serum are not the genuine vibrios of cholera.

It would appear, however, that the distinction of 'cholera-like' vibrios from the vibrios of Koch is not generally difficult for the experienced observer; and, in Germany, the presence of real vibrios in the absence of cholera is said to be very rare. This does not seem to be the case in this country, and, in England, Dr. Klein has frequently isolated genuine vibrios derived from cases where no connection with Asiatic cholera could be traced.

The recent work done by Dr. Klein, although not yet sufficiently advanced to allow of an appreciation of its full significance, seems to be by far the most important contribution made of late years to the elucidation of the cholera problem.

During the time of the recrudescence of cholera in Europe in 1893, attacks of cholera or resembling cholera occurred in England, and from 53 reported cases of this kind material was submitted to Dr. Klein for examination. In his report† Dr. Thorne Thorne classified these cases as follows:—

- (a) Fifteen, in which, in the stools or bowel-contents, flakes were found containing commas, not only in pure culture, but distributed

* *Zeitschrift für Hygiene und Infectiouskrankheiten*, Vol. XXI, p. 303.

† Reports and Papers on cholera in England in 1893; with an Introduction by the Medical Officer of the Local Government Board.

in the 'fish-in-stream'-like arrangement, said by Koch, to be absolutely characteristic of the vibrios of cholera.

- (b) Fifteen, in which, although examination of the stools or bowel-contents gave equivocal or negative results, cultural tests demonstrated the presence of Koch's vibrio.
- (c) Twenty-three, in which the presence of the vibrio could not be demonstrated by any means at Dr. Klein's disposal.

The bacteriological examinations were completed in nearly all instances before the receipt of the clinical histories of the illnesses. When the latter were compared with the results of the former, it was found that the 30 cases (a and b) in which vibrios had been demonstrated, presented, almost without exception, the clinical features of Asiatic cholera, and all but two were fatal. In only a minority of instances, however, had the persons attacked been residing in localities where unmistakable cholera had already manifested its presence, or where it made its appearance soon afterwards. In more than half of the cases, indeed, the circumstances were such that, but for the bacteriological evidence, the seizures would have been considered to be cholera *nostras*. Of the remaining 23 cases (c), in six, the materials submitted were not in a state to admit of the detection of vibrios even if present. Little more than half the 23 attacks proved fatal, and, when fatal results did ensue, death was often greatly delayed. In a few of the attacks, however, the disease was not to be distinguished from Asiatic cholera, and the antecedents were such as to tend to the presumption that they were cases of that disease. Further, Dr. Klein found the behaviour in culture media of some of the vibrios which he succeeded in cultivating to differ from the behaviour of Koch's vibrio, and was disposed, therefore, to conclude that several microbes might be included under the term 'Koch's vibrio.'

Commas, then, were found in cases which, clinically and from their antecedent circumstances, seemed to justify the exclusion of cholera from the diagnoses; and cases occurred in which, clinically and otherwise, the presence of cholera was indicated, but the commas were absent. Moreover, there was variation among the vibrios which were isolated. In view of these facts, the Local Government Board directed that further examination should be made into the occurrence of cases of suspected cholera.

In 1894 and 1895, Dr. Klein examined materials from 29 such cases.* The localities where the attacks occurred were widely separated, but, in some of them, cholera had been present in 1893. Several of the seizures were clinically indistinguishable from genuine cholera, and, in some instances, the localities and circumstances were suggestive of their relation to cases of that disease. In no single instance, however, were Koch's vibrios found after the most diligent search. But other microbes were present in great abundance, as it were in place of the vibrios. These microbes were the *bacillus coli* and the *proteus vulgaris*. An analysis of 28 cases,—for of one no details are given,—shows that in 16 the *bacillus coli* was isolated alone in pure culture; in five, the *proteus* alone, while in seven, both microbes were present. In three of the seven the *bacillus coli* predominated, in two the *proteus*, and in two the predominating microbe is not stated. Not only did these bacteria seem to replace the vibrios of Koch, but, in some instances, the *bacillus coli* was distributed in the

* Twenty-fifth Annual Report of the Local Government Board, 1895-96. Supplement containing the Report of the Medical Officer, Appendix B, No. 1.

epithelial flakes in the 'fish-in-stream' arrangement formerly believed peculiar to Koch's vibrio and absolutely diagnostic of cholera. The cases in which this arrangement was found were chiefly those in which Asiatic cholera was most closely simulated, not only clinically but in the naked eye appearances on *post-mortem* examination, and were mainly derived from localities where cholera had been present in 1893. "In a word," writes Dr. Thorne Thorne, "they differed from that disease solely in the circumstance that the predominant micro-organism, which exhibited in the intestinal flakes the 'fish-in-stream' arrangement, was not Koch's vibrio but *bacillus coli*." It may be noted that in one instance the *proteus* was present in streaks and lines in the hyaline matrix of the intestinal flakes.

Whatever may be the significance of these observations, researches, so far as they have gone, seem to indicate that, when genuine cholera exists in the neighbouring European countries, cases of disease, clinically resembling Asiatic cholera, which occur in England, are, generally, distinguished by the presence of vibrios, while, if there is no genuine cholera in the neighbourhood, vibrios are replaced by other microbes in similar cases of disease.

In England the procedure adopted on the occurrence of cholera or cholera *nostras* differs according to the variety of microbe detected. If vibrios are discovered in the stools or bowel-contents in a suspicious case, Asiatic cholera is administratively held to be present, and extreme measures of precaution are taken. In India we have long been familiar with the necessity for treating sporadic cases differently from epidemic outbreaks; but the presence of 'administrative' cholera is decided, not on bacteriological, but on clinical and epidemiological evidence. When a suspicious case of illness occurs among a body of men, the building in which the case occurred is evacuated and the men are segregated; if a second case occurs among the same body of men, they are again moved; and, if a third seizure takes place within a week of the first, the men are moved from the station to a preparatory camp. The procedure in India has been blamed in some quarters on what seems to be very insufficient grounds. It must be admitted, if vibrios are alone the potent factors in the causation of epidemic cholera, that the European method of determining, by a bacteriological examination, whether genuine cholera is, or is not, present, has the appearance, not only of being more scientific, but of being more reliable than the Indian method. But it must be remembered that all the conditions are essentially different. In Europe it seems that the presence of 'cholera-like' vibrios in water is not common, except at certain seasons of the year, while the presence of vibrios in the intestines, in the absence of cholera, is very rare. In India, it would appear, that vibrios are very common in water,* while sufficient facts have not yet been recorded to enable us to say whether they are frequent or infrequent inhabitants of the human intestine, or whether they or other microbes are generally present in sporadic cases of clinical cholera.

Single cases of cholera form no inconsiderable proportion of the total number of attacks among troops and in prisons in India, and it is evident, if vibrios are invariably present, that it would not be an advantage to take the extreme measures of precaution necessary on the occurrence of epidemic cholera, whenever they are found. Again, the functions of the administration in Great Britain and India are

* An enquiry into the relative frequency of vibrios in Indian waters, with reference to the prevalence of cholera in different parts of India would be of great interest. Are vibrios always present in endemic areas and absent from, say, the Punjab, except in cholera seasons?

different. Great Britain has, happily, for many years, been exempt from severe epidemic outbreaks of cholera, and the sanitary condition of most of the towns is now sufficiently good to justify the hope that the prompt adoption of measures of precaution will check an outbreak. In India no large part of the country is free from cholera for any great length of time; in the greater part of the country cholera is an annual visitant, and, in some places, it is continually present. Unhappily the time seems yet far distant when it will be possible to prevent epidemic cholera occurring in Indian towns, and, as yet, the only action which the administration can undertake with a reasonable certainty of success is the prevention of serious mortality when cholera breaks out in a body of men under their control.

Until we know exactly what the cause of cholera is, it is clearly impossible to remove that cause from a body of men; but we can remove the body of men from the cause. And movement, in India, at any rate, is the one sovereign remedy; it rarely fails, and when it does fail, the failure can, generally, be easily traced to the neglect of reasonable precautions.

118. Two experiments in cholera prophylaxis are being carried out on a great scale in this country. One, suggested by Mr. Hankin, aims at the destruction of the cause of cholera as near to its source as possible, the other, devised by M. Haffkine, is intended to render the human system immune to the disease, by rendering it capable of destroying the cause when it reaches the body. The first method depends on the belief that cholera is commonly, if not always, water-borne; the second, on the belief that a particular vibrio is the principal factor in the disease.

119. Mr. Hankin recommends that, on the outbreak of cholera, the sources of the water-supply of the people living in the neighbourhood should be treated as far as possible with some chemical disinfectant, preferably permanganate of potassium. There seems to be some misconception abroad as to Mr. Hankin's suggestion, and he has been charged with bringing forward as a discovery a well-known chemical fact. It is quite true that the use of alum to clear polluted waters has been known for a very long time, and that, so far back as 1859, manganates and permanganates were shown by Hofmann to be valuable disinfecting agents, while their general application for such purposes was made popular by Mr. Condy. But Mr. Hankin's suggestion is the application of the well-known properties of chemical agents to the prevention of cholera by endeavouring to destroy the cause of the disease near its source, and, as such, seems to be absolutely new. What remains to be proved is the effect of the measure; and there are obviously great difficulties to be encountered in proving whether it is efficacious or not. On the one hand, epidemics of cholera are prone to sudden cessation, from unknown causes, and, on the other, when the disinfectant is employed, sources of infection may remain, either overlooked altogether or insufficiently disinfected. Epidemics in villages cannot be arranged, and it must be a long time before the number of accumulated facts is large enough to establish conclusions. As yet only opinions are available, and, so far as they are of any value, they are distinctly in favour of the procedure, though the evidence, it must be confessed, is conflicting.

120. M. Haffkine's inoculations were carried on in 1896, in Bengal, at first under M. Haffkine's own superintendence, and subsequently by Surgeon-Captain J. C. Vaughan and

Anti-cholera inoculation.

two Assistant Surgeons, acting under his general supervision. The total number of persons inoculated in Bengal, exclusive of Calcutta and its suburbs, was 4,413, most of whom were coolie emigrants proceeding to Assam. Dr. Vaughan's report with tables and remarks on one series of cases by M. Haffkine, taken from the Bengal Sanitary Report for 1896, will be found appended to this chapter.

121. The total number of deaths recorded as due to cholera throughout India and Burma in 1896 was 471,779, a mortality greatly in excess of that of the preceding year, when 313,420 deaths were recorded, but considerably lower than in 1894 when the number was 521,975. Except in Assam, Burma, Ajmere-Merwara and Mysore the numbers of cholera deaths in all the provinces were higher than in 1895, and it may be noted that, in spite of the lower aggregate number of deaths, the mortality was higher than it was in 1894 in all provinces, except Bengal, the North-Western Provinces and Oudh, Hyderabad and Burma.

In the following statement the number of deaths registered in the various provinces in 1896 are compared with the numbers registered in each of the preceding nineteen years:—

Statement shewing the deaths from CHOLERA in the different Provinces in India from 1877 to 1896.

YEAR.	Bengal.*	Assam.	N.-W. P. and Oudh.	Punjab.	Central Provinces.	Berar.	Rajpu- tana.	Central India.	Bombay.	Hyder- abad.	Madras.	Mysore.	Coorg.	Lower Burma.	Ajmere- Merwara.
1877 . . .	155,305	11,377	31,770	29	3,418	842	60	926	57,228	7,414	357,430	2,902	†	7,276	11
1878 . . .	95,192	6,732	22,221	215	40,985	34,306	2,393	8,047	46,743	6,696	47,167	723	49	6,759	210
1879 . . .	130,363	17,415	35,892	26,135	27,575	223	918	2,734	6,937	6	13,296	14	...	1,828	120
1880 . . .	39,643	2,803	71,546	274	330	1	...	299	684	...	613	25	...	2,638	3
1881 . . .	79,180	5,010	25,865	5,207	9,140	3,404	197	581	16,694	1,721	9,446	25	3	5,239	16
1882 . . .	182,352	21,055	89,372	39	11,932	3,573	1,327	1,562	7,904	150	23,604	893	31	7,177	283
1883 . . .	90,439	14,908	18,160	190	16,235	27,897	797	1,740	37,954	1,947	36,284	124	...	2,185	87
1884 . . .	134,421	22,276	30,143	614	149	87	1,297	1,018	13,804	2,479	75,476	330	...	5,515	227
1885 . . .	173,767	7,753	63,457	1,936	21,868	3,683	1,615	4,624	37,287	1,387	58,109	2,677	...	7,685	100
1886 . . .	118,368	20,188	34,565	12	16,679	976	173	290	167	499	12,417	10	...	4,027	765
1887 . . .	172,578	7,941	200,628	8,804	12,576	14,396	2,612	8,868	25,711	2,831	28,359	832	3	2,649	384
1888 . . .	111,391	9,693	18,704	14,938	921	305	32	191	36,500†	2,057	58,677	1,015	2	15,982	13
1889 . . .	171,103	18,288	48,494	2,838	52,588	10,925	6,923	3,344	32,431	1,128	76,020	1,590	9	3,240	55
1890 . . .	145,885	15,396	80,295	3,401	4,787	847	2,746	3,132	3,259	...	35,288	1,326	5	1,076	403
1891 . . .	229,575	23,882	169,013	10,107	21,312	7,958	2,946	13,474	17,850	3,102	98,773	1,204	7	2,400	532
1892 . . .	259,398	21,552	194,886	75,959	39,972	2,030	26,760	8,384	42,900	53	79,033	5,497	58	6,208	2,352
1893 . . .	126,976	21,849	12,154	639	557	1,188	314	127	18,853	165	32,209	680	9	2,393	3
1894 . . .	236,150	13,497	178,079	113	7,043	3,452	2	5,210	33,588	1,862	42,289	328	8	7,428	...
1895 . . .	177,087	18,962	51,562	549	15,506	11,919	1,049	6,043	8,890	467	21,172	2,334	...	5,150	289
1896 . . .	226,824	17,042	69,147	5,146	52,985	12,264	3,797	15,766	35,404	525	47,847	2,100	49	2,959	12

* Excluding Calcutta from 1877 to 1892.

† Including four deaths, the monthly distribution of which is not known.

‡ Statistics not available.

The following table shews the seasonal distribution of fatal cases in the different provinces. The highest mortality, it will be observed, occurred in the months of May and June, and the lowest in January, February and November.

Statement showing the deaths from CHOLERA registered in the different Provinces, by Months, during the year 1896.

PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	RATIO OF DEATHS PER 1,000 OF POPULATION.	
														1896.	1895.
Bengal	12,259	12,217	35,142	42,846	38,318	38,099	14,001	13,505	6,896	2,782	3,707	7,052	226,824	3.19	2.49
Assam	1,719	1,171	1,642	1,652	1,508	1,455	350	318	506	1,036	3,044	2,641	17,042	3.39	3.78
North-Western Provinces and Oudh .	145	179	1,145	7,653	12,480	9,380	5,138	9,366	12,926	9,169	1,340	226	69,147	1.47	1.10
Punjab . . . .	...	...	...	1	1,245	1,206	1,037	845	547	231	33	1	5,146	0.25	0.03
Central Provinces . .	29	829	2,879	8,407	12,935	14,000	6,384	4,931	1,816	424	143	208	52,985	5.58	1.63
Berar	38	148	1,055	2,869	2,310	653	2,304	1,600	844	321	112	10	12,264	4.31	4.19
Lower Burma . . .	191	75	71	288	419	439	598	295	162	168	115	138	2,959	.66	1.14
Madras Presidency .	449	381	274	322	1,368	2,699	3,618	4,065	5,898	4,813	5,961	17,999	47,847	1.46	.63
Bombay	144	164	663	2,942	5,908	5,483	9,772	6,424	1,822	584	587	911	35,404	1.88	0.47
Ajmere-Merwara . .	...	...	...	2	1	4	1	4	...	...	...	...	12	.02	.53
Coorg . . . .	...	...	...	...	...	...	11	27	6	...	...	5	49	0.28	...
Mysore	13	...	2	3	75	173	185	221	99	342	464	523	2,100	.43	.48
TOTAL	14,987	15,164	42,873	66,985	76,567	73,591	43,399	41,601	31,522	19,870	15,506	29,714	471,779	2.17	1.43

In the next statement the millesimal death-rates in the different provinces in 1896 are compared with the averages of the preceding five-year period; the average urban is compared with the average rural mortality; the maximal rates recorded in town and country circles are given; and the months of the greatest prevalence of the disease in each province, as indicated by recorded deaths, are shewn:—

PROVINCE.	Mortality in 1896.	Mean mortality of previous five years.	Urban mortality.	Rural mortality.	Per cent. of villages attacked.	Maximum mortality in any one rural circle.	Maximum mortality in any one town.	Month of maximum prevalence.
Bengal	3.19	2.91	5.14	3.09	12.2	24.02	23.58	April.
Assam	3.39	3.97	5.50	3.35	17.6	7.74	26.18	November.
North-Western Provinces and Oudh .	1.47	2.58	1.58	1.46	6.5	33.90	51.22	September.
Punjab	0.25	0.85	0.14	0.26	1.8	11.5	3.63	May.
Central Provinces . .	5.58	1.78	4.61	5.67	16.1	29.10	41.05	June.
Berar	4.3	1.8	5.3	4.2	12.4	17.4	29.2	April.
Lower Burma . . .	.66	1.04	.40	.69	7.5	5.50	8.88	July.
Madras	1.5	1.6	2.3	1.4	9.8	13.9	60.6	December.
Bombay	1.88	1.30	1.71	1.90	10.5	14.74	13.06	July.
Ajmere-Merwara . .	.02	1.17	.06	.01	.5	.13	.23	June and August.

122. The number of deaths registered as due to cholera in Bengal in 1896 was 226,824, equal to a death-rate from that cause of 3.19 per mille, as compared with 2.49 in 1895, and 2.91, the quinquennial mean. The increase is ascribed, generally, to the concentration on account of the deficient rainfall of the bad water-supply of the people. The cholera death-rates were highest in the districts of Muzaffarpur (8.78), Balasore (7.72), Howrah (6.73), Nadia (6.52), Darbhanga (6.24), 24 Parganas (5.83), Khulna (5.72), and in the City of Calcutta (5.06).

In all of these districts, except Muzaffarpur, the prevalence of the disease was ascribed to deficient and polluted water-supplies. In Muzaffarpur, however, the disease was much less prevalent in the south and centre of the district,

where the people are described as having recourse for drinking purposes to stagnant puddles, than in the north of the district where the water-supply was comparatively abundant.

The Sanitary Commissioner accounts for these curious facts as follows :—

“That ” (*i.e.*, greater severity where water most plentiful,) “may be the cause of its greater virulence there in a year in which there was not enough rain to flush and purify the tanks and wells. It may be imagined that cholera once started in such a locality, and the habits of the people being what they are, all the water supply would soon become polluted or impregnated with the cholera germs, and then it is easy to account for the rapid spread and virulence of the disease.”

This explanation is quoted, apparently with approval, in the resolution by the local Government, but it is difficult to follow. The disease was prevalent in every registration circle in the district, and if we are to accept a deficient polluted water-supply as the cause of cholera prevalence in the other districts, the explanation given does not render it apparent why it should be regarded as a comparative protection in part of Muzaffarpur. It may, however, be noted that the localities named in which the cholera death-rates were highest are, except Darbhanga, in Bengal proper and Orissa, and that, with the exception of Darbhanga, the greatest prevalence of cholera in them occurred before the end of May. In Darbhanga the disease was most prevalent from April till July; in Muzaffarpur, from April to September.

Not only was the mortality of the year very high, but the disease was very widely spread, and only 34 of the 701 registration areas were entirely free from it. The rural mortality was 3·09 per mille, much lower than the urban, which was 5·14. In only five towns, Darjeeling, Kurseong, Kishanganj, Lohardagga and Daltonganj, was no death registered, although in a good many there was only a single death.

In the province as a whole, the disease was most severe in April, May and June. In Bengal proper and in Orissa, the months of greatest prevalence were March and April; in Bihar, May and June; and in Chota Nagpur, where cholera was comparatively less prevalent than elsewhere, May, June and July. The periods of least prevalence in the province, as a whole, were October and November; in Bengal proper, August and September; in Bihar, October, November and December; in Orissa, October and November; and in Chota Nagpur, October, November and December.

123. The number of deaths ascribed to cholera in Assam in 1896 was

Cholera in Assam. 17,042, equal to a death-rate of 3·39 per mille, against 3·78 in 1895, and 3·97, the average of the previous

five years. In the Surma Valley the disease was much more prevalent than in 1895, but in every district of the Brahmaputra Valley, except Nowgong, the death-rates were lower. In Nowgong, where the death-rate in 1895 had fallen to the comparatively low figure of ·91 per mille, it rose in 1896 to 4·22. Following Nowgong, the districts in which the highest rates were recorded were Sylhet 3·86, and Lakhimpur 3·67; while in Kamrup, where the highest rate was registered in 1895, the mortality fell to 1·49, the lowest in the province. The average cholera death-rate in rural areas was 3·35, much lower than the towns, in which the average was 5·50. The excessive urban rate was due to the deaths of coolies landed at the depôts at Tezpur (where the enormous cholera death-rate of 26·18 was registered), Dhubri (22·38), Silchar (14·09), and Gauhati (9·18). If these deaths, aggregating 302, are excluded, the urban death-rate from

cholera is reduced to 2·85, considerably less than the provincial average. Only three small towns escaped altogether, Mangaldai, where in 1895 16 deaths yielded a cholera death-rate of 22·89, Jorhat and North Lakhimpur.

In the tea-gardens the estimated mortality was 4·64 per thousand. The facts that the sanitation of the gardens is generally much better than in the villages, and that the incidence of cholera is more severe in the latter than in the former, lend the appearance of probability to the belief, frequently expressed by Civil Surgeons, that the mortality from cholera in tea-gardens is due to the introduction into them of the disease by immigrant coolies. It is pointed out in the resolution of the local Administration that the cholera death-rate in tea-gardens appears much higher than it really is, as it is calculated on the census population of 1891, and, since then, the garden population has increased by nearly 30 per cent. Calculated on the actual population, the cholera death-rate in the gardens is about 3·58 per thousand. It is said that the majority of deaths from cholera in the gardens occur during the height of the immigration season, whereas the greatest prevalence of the disease in the province, generally, does not shew this coincidence. It would be of interest—and might furnish data on which to base preventive measures—if details were obtained shewing whether cholera is confined to new comers, who presumably contract the disease *en route* to the gardens, or whether, and in what gardens, the disease spreads among the resident coolies. In connection with the mortality of coolies on their journey from India to Assam, Surgeon-Major Campbell was deputed near the end of the year to enquire into the conditions of the journey. He has submitted an interesting report. Effect has already been given to some of his suggestions, and others, from which much benefit may be expected, will be adopted.

As usual, cholera was present in every district of the Brahmaputra and Surma Valleys, and in every month of the year. In the province as a whole, the maximum prevalence of the disease was in November and December, due to a great and sudden increase in the Surma Valley in the former month. In the Surma Valley, the months of greatest prevalence were November, December and January; in the Brahmaputra Valley, April, May and June.

124. The total number of deaths from cholera was 69,147, and the death-rate was 1·47 per mille. This, although higher than in 1895, when the rate was 1·10, is considerably lower than the quinquennial mean of 2·58. The death-rates were highest in Jhansi (8·95), Banda (5·88), Bareilly (4·15), and Naini Tal (4·10). No district escaped entirely, but only 13 deaths were recorded in Budaun, 11 in Etawah, and two in Mainpuri. The rural death-rate was 1·46, as compared with 1·58 in the towns. Among the larger towns, Jhansi (7·30), Aligarh (4·54), Ghazipur (4·22), Muttra (3·96), Benares (3·02), Fyzabad-Ajudhia (2·81), and Jaunpur (2·40) suffered greatly. The disease was very severe in some of the smaller towns, among them Lalitpur (15·86), Sahtawar (11·72), and Shahabad (11·16).

There was little cholera in the Provinces in January and February, but there was a rise in the number of deaths in March and a great increase in the mortality in April. In May the number of deaths reached 12,480, due principally to a very severe outbreak in Banda. In June there was a decline, and in July this was more than maintained. In August the number of deaths again increased, until the maximum of 12,926 was reached in September, after which the number

fell off, and only 226 were recorded in December. Regarding the epidemic in Banda Dr. Thomson writes :—

“The most violent outbreak was that in Banda. It broke out with great severity on relief works, and the district was visited and reported on by both Doctor Hutcheson (who had temporarily returned to these Provinces), and myself. High as the recorded mortality is, it probably falls short of the truth, for great numbers of people died *en route* to their homes, and of these no statistics could be obtained. The frightened people adopted a procedure which was probably the best under the circumstances, and ran away from the infected areas. Any one who has seen how cholera can spread and destroy in such a community will understand how little can be done in practice to stay the disease when once it has thoroughly seized on the people. The water-supply is generally the most active agent in the dissemination of the disease. In Banda the supply was carefully protected as far as possible, but water was scanty and the wells were few.

The outbreak, though so violent, did not last long. The deaths rose from 67 in April to 3,037 in May, declined to 989 in June, and sank to 45 in July.

The history of this outbreak, and termination appears to indicate that, in the event of cholera appearing on large relief works, the best procedure is to immediately quit the infected locality and to break up the gangs into as small and manageable units as is possible, and consistent with organization and discipline. The water-supply must be most rigorously guarded—search parties going in front of the moving gangs to select and protect the wells.”

There was no outbreak of epidemic disease at the Hardwar, Dadri or *Magh mélas*.

125. In 1896 the total number of deaths registered as due to cholera in the Punjab was 5,146, equal to a death-rate of .25 per thousand of the population, as compared with .03 in 1895, and .85, the mean of the preceding five years. Although the disease spared only nine of the 31 districts, it was severe only in Rawalpindi, where the death-rate reached 2.81 per thousand; the next highest rates having been .77 in Kangra and .73 in Dera Ghazi Khan.

The distribution of the earliest reported fatal cases is interesting. The province was free from the disease until the 14th of April, when a fatal case occurred in the district of Ludhiana. This was an isolated case, for no other death was reported in the district until June, when 14 occurred. On the 1st of May a fatal case was reported in the rural circle of Khanpur in the extreme northern district of Hazara; on the 3rd May a death was reported in Tarn Taran in Amritsar, and on the 5th May another case terminated fatally in Ghazi, in Hazara. The next three first fatal cases occurred in the extreme south-east of the province;—on the 9th May in Butana in Karnal; on the 10th in Gohana in Rohtak; and on the 11th in Hodal in Gurgaon. On the 12th May a fatal case was reported in Sirhali Kalan, a rural circle in Amritsar, and on the 13th a death was reported from the rural circle of Rawalpindi. Between the 13th and the 18th deaths occurred in eighteen registration circles in the Rawalpindi district; on the 27th May there was a death in the town of Hazro; and on the 6th June, in the rural area of Pindigheb. Only three circles of registration in the Rawalpindi district escaped, namely, the town circles of Pindigheb and Attock, and the rural circle of Makhad.

The spread of the disease is ascribed by Dr. Roe to an outbreak at the Nurpur fair, a religious assemblage at a place about eight or nine miles from the town of Rawalpindi. The fair began about the 8th of May; cholera broke out severely on the 12th, and, as we have seen above, fatal cases occurred throughout the district between the 13th and 18th of May.

The average mortality in rural areas was $\cdot 26$ per mille, nearly twice as high as the ratio in towns, which was $\cdot 14$. The only town that suffered severely was Rawalpindi, where $3\cdot 63$ per thousand of the population died of cholera; the next highest ratios having been $\cdot 52$ per mille recorded in Peshawar, and $\cdot 36$ registered, respectively, in the towns of Rewari and Palwal, in the district of Gurgaon.

Seasonally, the disease reached its maximum of 1,245 deaths in May, and there was but little diminution until August, when the number of deaths fell to 845. After this the number of deaths declined steadily to 547 in September, 231 in October, 33 in November, and 1, an isolated case in Delhi, in December.

126. The number of deaths ascribed to cholera in the Central Provinces in 1896 was 52,985, equal to a death-rate of $5\cdot 58$ per thousand, as compared with $1\cdot 63$ in 1895, and $1\cdot 78$, the quinquennial mean. This enormous death-rate has been exceeded only in 1869, when the rate computed was $10\cdot 50$ per thousand, and in 1889, when the death-rate was $5\cdot 96$.

Cholera was present in every district in the province; the death-rates ranging from $15\cdot 75$ in Mandla, to $\cdot 68$ in Burhanpur. In twelve of the twenty districts the rates were lower than the provincial average, and in five, Narsinghpur, Hoshangabad, Nimar, Burhanpur and Betul, they were lower than the average in these districts during the preceding five years.

In five of the districts, Mandla ($15\cdot 74$), Bilaspur ($10\cdot 99$), Damoh ($9\cdot 57$), Seoni ($9\cdot 48$), and Raipur ($9\cdot 00$), the millesimal death-rates were nine or more.

In Mandla there were 5,344 deaths, and the disease lasted from the middle of March until October. The spread of cholera is said to have been facilitated by the limited water-supply, while the low general health of the people, the poorer classes of whom were existing on roots and forest herbs, rendered them an easy prey.

In Bilaspur it is stated that there is clear evidence of cholera having been imported by pilgrims. The disease appeared in three different places almost simultaneously, namely, the village of Mahwadi, Bilaspur town, and Baloda. The first cases were those of three coolies who returned from the *Magh méla* at Allahabad to the village of Mahwadi in the Janjir Circle on the 31st January and died the same day. In Bilaspur town three tea-garden coolies of a batch of twelve, residing in the jail compound, died of cholera on the 1st of February. In the Baloda circle, the first case is said to have occurred on the 4th February in the person of a woman who had just returned from the *Magh méla*. On the 4th February, also, cholera broke out in the towns of Mungeli and Ratanpur, places 35 miles apart, the former in the west and the latter in the north of the district. The first victims, in both cases were "residents who had recently been absent from their homes. On the day of the outbreak, however, and for several days previously, many pilgrims returning from Allahabad had passed through Mungeli and Ratanpur." Dr. Hutcheson guardedly endorses the theory of importation from Allahabad in the following terms:—

"The concurrence of the outbreak at Mungeli and Ratanpur with the return of these persons who halted at both these places would lead one to think that it was more than a mere coincidence. With regard to the garden coolies, many of them coming to Bilaspur had travelled by the Kutni Branch of the Bengal-Nagpur Railway, that is, by the same route by which the returning pilgrims travelled, and among whom at the

time cholera was prevalent. Both coolies and pilgrims must have halted for some time at Kutni, and the water-supply of this place is obtained from a large open masonry well, some 20 yards from the station. It is quite possible that the first outbreak of cholera among the coolies was caused by "contact or communication with the pilgrims."

Now, while there is no reason to doubt that the first sufferers were pilgrims or persons who had been in contact with them, it is difficult to accept the theory that they contracted cholera at the *Magh méla*, for, as we have seen, there was no outbreak at that festival; indeed, there were only two deaths in the Allahabad district in January (the earlier on the 29th), and only 39 during February. If Kutni was the centre of dissemination, cases should have occurred in the Murwara district in which it is situated, simultaneously with the outbreak in Bilaspur, but the first fatal case in Murwara was reported on the 14th February, nearly a fortnight after the occurrence in Bilaspur.

In Damoh the severity of the disease, which is stated to have been imported from Saugor, was attributed to great scarcity of pure water.

The disease is said to have been brought into the district of Seoni by beggars, one of whom died of cholera and was left unburied on the banks of a *nala* whence the water-supply of the village of Bareylee Kalan is taken. "The disease spread from this village rapidly." Regarding its introduction Dr. Hutcheson writes:—

"It was one of the worst epidemics the district has experienced. The suddenness with which the disease spread, and its almost simultaneous appearance in circles widely separated, show that there was some widespread local predisposing cause apart from importation. The disappearance of the disease on the onset of the monsoon and the extreme dryness and the high temperature of the preceding months seem to indicate that the predisposing cause was largely meteorological."

In the Raipur district the first case was that of a *malguzar*, who was attacked at Kutni station when returning from a pilgrimage to Allahabad. "The disease broke out simultaneously in four outposts, and mostly among pilgrims." In this district, and in Bilaspur, the water-supply of the people is mostly taken from tanks which are filled by surface drainage. In a year of deficient rainfall these tanks are, of course, more than ordinarily polluted.

It would appear from the seasonal distribution of the deaths that the concentration of the polluted water-supply was a very favouring agent to the distribution of cholera in the province generally. In January there were only 29 deaths in three districts; in February six districts had been attacked, and there were 829 deaths; in March the deaths in fourteen districts aggregated 2,879; in April there was an enormous rise to 8,407, and only four districts were free from the disease; in May the increase was maintained, and every district, except Burhanpur and Sambalpur, contributed fatal cases, of which 12,935 were registered. In June the maximum of 14,000 deaths was reached. In the beginning of July rain was general, and the number of deaths fell to 6,384. In August heavy rain fell and the deaths declined to 4,931. In September the decline continued, and 1,816 deaths were registered, in October 424, in November 143, and in December 208.

The average death-rate in rural areas was 5·67 per mille, considerably higher than the urban average, which was 4·61. In some of the towns, however, the death-rates were enormously high,—in eleven over 10 per mille. The highest death-rates were registered in Lakhnadon, a small town in the Seoni district, where 83 deaths yielded a death-rate of 41·05 per mille; in Mungeli, 190 deaths, death-rate 39·95; in Damoh, 382 deaths, death-rate

32.50; in Drug, 124 deaths, death-rate 29.89; in Mandla 20.57; in Bilaspur, 15.74; in Arung, 15.42; in Khurai, 12.91; in Sailu, 11.36; in Umrer, 10.94; and in Hatta, 10.17. On the other hand, seventeen towns, including Burhanpur escaped altogether, and in others the death-rates were comparatively low. Raipur, it is stated, was protected by its water-supply. In that town there were 71 deaths, equal to a death-rate of 2.99 as compared with the district rate of 9.10. The first few cases that did occur are said to have been due to importation, and the remainder to the contamination of a tank.

From the statistics it would appear that males suffered much more than females; the death-rate among the former having been 5.87 per thousand against 5.28 of the latter. This relation, although the figures of course varied, obtained in every district except Seoni, where the female cholera death-rate was .10 per mille higher than that for males.

127. The number of deaths from cholera in Berar was 12,264, and the death-rate was 4.3 per mille, as compared with 4.2 in 1895, and 1.8, the average of the previous five years. The greatest mortality, as in 1895, occurred in Basim, where the death-rate was 7.3 per thousand. The next highest rate was 6.9, recorded in Wun, and in the remaining districts the rates ranged between 4.2 in Amraoti, and 2.5, respectively, in Ellichpur and Akola. The average rate in rural areas was 4.2, against 5.3 in the towns.

Cholera in Berar.

Among the latter five escaped, Karanja, Buroor, Sendurjana, Pusla and Mehkar. The cholera history of these five towns during the last three years is remarkable. In 1894 eighteen of the thirty-seven towns in Berar were free from the disease; among those that escaped were Karanja and Mehkar, while in Sendurjana and Pusla, the two highest cholera death-rates in the province, 18.9 and 15.8 per mille were recorded, Buroor coming fourth, with 10.3. In 1895 only eleven towns escaped, including Karanja, Buroor, Sendurjana and Pusla; in Mehkar the death-rate was 5.3 per thousand. Dr. Little drew special attention to the immunity of Sendurjana, Buroor and Pusla in 1895, and it might be instructive to attempt the discovery of the reason of their continued immunity.

As compared with the epidemic of the previous year cholera was more widespread, but, save in the district of Amraoti, less intense. As in 1895, the seasonal mortality was abnormal, but the abnormality was more pronounced. Usually the mortality from cholera in Berar is at a minimum in the earlier part of the year, rising towards the end of the hot weather to a maximum in August and September, after which the mortality suddenly falls, and then steadily declines until the end of the year. In 1895, the disease was unusually prevalent in the earlier part of the year, and the provincial maximum was attained in July; though in Wun the maximum was reached in March, and in Amraoti and Ellichpur, in May. In 1896, there was no great prevalence of cholera in January and February, but the number of deaths in March was far above the average, and the maximum was reached in April; there was a falling off in May, and a very remarkable fall in June. In July the number of deaths rose to the level of the mortality in May; in August there was a great drop, and after that a steady decline until the end of the year. It seems possible that the early rise was due to unusual contraction of the water-supply; and that the decline in June was due to the rainfall in that month. But an unusual seasonal distribution of mortality was not confined to cholera.

"This unusual seasonal incidence was not peculiar to cholera alone, but under

other disease causes, it will be seen that the months of March, April and May were the months of highest mortality, which points to some general and unusual influence throughout the province affecting the public health.

The general cause or causes which exercised this baneful effect on the health of the people is, however, a problem impossible to definitely solve in the present state of our knowledge."

128. The recorded number of deaths from cholera in Madras in 1896 was

Cholera in Madras. 47,847, equal to a death-rate of 1·5 per mille, as compared with ·6 in 1895, and 1·6, the quinquennial

average. No district escaped the disease, although in South Kanara, the Nilgiris, Kistna, Nellore and Madras the mortality was comparatively slight. The highest district rate was 5·4 recorded in Coimbatore; this was followed by 4·7 in Bellary, and 3·5 in Anantapur. In Bellary, Malabar, South Arcot and Tanjore deaths were recorded in every month of the year. The rural death-rate was much lower than the urban, 1·4 per mille as compared with 2·3. Seventeen of the towns, including Cannanore, Nellore, Mangalore, Musulipatam and Guntur escaped altogether, and in others there were only a few deaths. On the other hand, some towns suffered very severely. In Kilakarai, a town in Madura, of rather more than 12,000 inhabitants, there were 751 deaths equal to the enormous death-rate of 60·6 per thousand. In Ambur, in North Arcot, 248 deaths yielded a death-rate of 23·4. In Vaniyambadi, in Salem, there were 289 deaths, and the death-rate was 18·2. In Tiruppattur, in the same district, 267 deaths, gave a death-rate of 16·2. In Cochin (10·8), Tadpatri (10·0), Palamcottah (9·8), Berhampur (8·9), Karur (8·6) and Tinnevely (6·5), exceptionally high rates were registered. By far the greatest mortality (17,999 deaths) occurred in December, followed by November (5,961) and September (5,898); the smallest number of deaths were recorded in March (274) and April (322).

129. There were 49 deaths from cholera in Coorg, and the death-rate was ·28 per mille as compared with a quinquennial

Cholera in Coorg. average of ·09. Six deaths in Virajendrapet and five in Fraserpet, yielded an average millesimal death-rate in the towns of ·71, as compared with ·24 in rural areas. The deaths occurred in July (11), August (27), September (6) and December (5).

130. There were 35,404 deaths registered as due to cholera in the Bombay Presidency in 1896, and the death-rate, which in the

Cholera in Bombay. previous year was only ·47 per mille, rose to 1·88, or ·58 per thousand in excess of the quinquennial mean.

In the province of Sind there were only 5 deaths, recorded in Thar and Parkar in June; but all the other districts were affected, although the epidemic was severe only in Bijapur (death-rate, 6·59 per mille), Poona (5·97), Ahmednagar (3·26), Belgaum (3·10), Satara (3·03), and Kolaba (2·08). The death-rate in rural areas, 1·90, was somewhat higher than the urban rate, which, although one-third of the towns escaped altogether, was 1·71. In many of the towns the cholera death-rates were very high; notably Athni (13·06), Wai (12·06), Godhra in Ahmedabad (11·30), Godhra in Panch Mahals (9·12), Broach (8·24), Junnar (7·39), Gadag Bettigeri (6·84), Pandharpur (6·57), Nasik (5·94), and Sengamner (5·65). The greatest prevalence of the disease was in the months of May to August inclusive, with the maximum in July.

131. The number of fatal cases of cholera registered in Lower Burma in 1896 was 2,959, equal to a death-rate of $\cdot 66$ per thousand of the population, as compared with 1'14 in 1895, and 1'04, the mean of the previous quinquennium. Two districts, Kyaukpyu and Mergui, were entirely free from the disease, and, except in Myaungmya (2'02), Bassein (1'99), Thongwa (1'29), and Tharrawaddy (1'26), the district death-rates were under 1 per mille. In rural areas the average death-rate was $\cdot 69$, against an average in the towns of $\cdot 40$. Fifteen towns escaped altogether, and, except in the small towns of Myaungmya (8'88), Maubin (4'69), Lem-yethna (4'10), Letpadan (3'56), Zigon (2'89), and Gyobingauk (1'00), the cholera death-rates were low.

The greatest numbers of deaths were registered in the months of July, June and May, and the least in March and February.

Among the populations of the four towns in Upper Burma in which deaths are registered, only two fatal cases of cholera were reported, both in Myingyan.

132. The following paragraphs are compiled from the official reports, by the officers in medical charge, of the occurrence of cholera among bodies of troops and among prisoners.

133. Cholera occurred among European troops on 25 occasions and in 21 different stations. There were in all 74 seizures, of which 64 proved fatal, a case-mortality of 86'49 per cent. On ten occasions only one man was attacked, and nine of these attacks were fatal. It is of interest to note that at the time of the occurrence of three of these isolated fatal cases, at Amritsar, Campbellpore and Mandalay, no cholera was reported to be present in the neighbourhood. In two instances the first attacks were attributed to the consumption of fruit. At Muttra, where there were only two cases, the two men had gone out together and obtained some fruit; the kind of fruit is not stated, but they brought it back to barracks and ate it shortly before they were seized with cholera. A native servant who is said to have eaten some of the same fruit was attacked at the same time and died in the Civil Hospital. The first outbreak at Jhansi was attributed to the men having partaken largely of melons while on their journey to that station.

Cholera appeared in 56 bodies of men belonging to the Native Army, on 60 occasions and in 38 different stations. There were 212 seizures and 137 deaths, a case-mortality of 64'62 per cent. In 24 instances the attacks were single. Among the Europeans isolated attacks were not more fatal than others, but among the natives the case-mortality in such attacks was about 12 per cent. higher than in the remainder. In a few first cases the seizure was preceded by dietetic irregularities.

The occurrence of cholera among prisoners was limited in 1896 to the jails in Bengal, Assam, the Central Provinces and Burma. Cases of the disease occurred in 36 jails on 47 occasions. There were 163 seizures, of which 98 proved fatal, or 60'12 per cent. The number of isolated cases was 21, and the case-mortality among them 71'43 per cent. In some instances the prisoners were attacked soon after admission to jail, and, on one occasion, the prisoner was actually suffering from cholera when brought to the jail.

At Darbhanga the first attacked was a man who had been drinking water from a tank, the water of which teemed with microbes, said to be "cholera"

vibrios, but no connection between the first and subsequent cases was established, nor could the origin of the latter be discovered.

The history of the outbreak at Myingyan, where 6 cases and 3 deaths occurred, is of etiological importance. There was no cholera reported in the town of Myngyan, nor in the neighbourhood. The townspeople use river water, while the prisoners used water from wells. This well-water is highly charged with salts, but is otherwise of good quality, and was carefully boiled before use. Prior to the occurrence of cases of cholera, the general health of the prisoners had been indifferent, and diarrhœa was very prevalent. After the occurrence of the first case, the well was "disinfected," but other cases of cholera occurred. "When cholera persisted in spite of disinfection of the wells," writes the medical officer, "I changed to river water on the 11th of July, after that there was a single case on the 12th, and diarrhœa began to diminish."

134. Among European troops diarrhœa was specially prevalent at the time that cholera occurred at Indore (2 cases of cholera, both fatal), and Poona (14 cases, all fatal): among Native troops, at Dinapore (2 cases, 1 death) ; Sirur (18 cases, 9 deaths) ; and Agar (7 cases, 4 deaths): among prisoners in the jails at Myingyan (6 cases, 3 deaths) ; and Darbhanga (30 cases, 24 deaths).

135. The following statement shews, approximately, the number of buildings occupied by the various bodies of men attacked, and the proportion which furnished cases of cholera :—

COMMUNITIES.	Number of buildings occupied by bodies of men attacked.	Number of buildings which furnished cases.	Percentage of buildings which furnished cases.
European troops	380	40	10·53
Native "	11,163	142	1·27
Prisoners	527	76	14·42

136. Cases of cholera occurred under very many different weather conditions, but it is not possible to directly connect any of the latter with the former in the relation of cause and effect.

137. In many instances it appears that the question in the cholera register with regard to importation has been misunderstood. The use of the term 'imported' should be restricted to those cases in which (1), cholera is brought from a locality in which it is known to exist to a locality from which it is known to have been previously absent, and (2), in which the connection of subsequent cases with the first is clearly traceable.*

In only one instance, the Malwa Bhil Corps, at Sirdarpore, is cholera said to have been imported into, and spread in, a regiment. At the time of the outbreak no occurrence of cholera in the villages surrounding Sirdarpore, within a radius of ten miles, was reported by the civil authorities, but there was cholera at a village some 15 miles from the cantonment. "Here a feast was attended by

* Vide Sanitary Commissioner's Report for 1894, page 151.

some women of the regiment. On their return to cantonment two were attacked with choleraic diarrhœa, and the outbreak followed in the regiment." These women were attacked on the 21st of June and recovered; but in his account of the epidemic, the medical officer describes it as having lasted in the station from the 14th June to the 12th August. Moreover, he notes that the first case seen was admitted into hospital from a village $2\frac{1}{4}$ miles west of the cantonment. The date of the occurrence of the first case in the regimental cholera register is the 26th June, and, admitting that the women attacked on the 21st June suffered from cholera, it would appear that the disease was present in the immediate neighbourhood of the cantonment before their attack. Cholera may have been imported to the neighbourhood, but it cannot be correctly said to have been imported into the regiment.

138. The following statement shews the number of persons who attended Attendants attacked by the disease. on cases of cholera, and the percentage that were attacked:—

COMMUNITIES.	Number of cases of cholera treated.	ATTENDANTS.		Percentage of attendants attacked.
		Number.	Number of those attacked.	
European Troops . . .	74	287	1	'35
Native " . . .	212	605	7	1'16
Prisoners . . .	163	266	8	3'01

The medical officers who describe the outbreaks among soldiers, do not, in any case, ascribe the attack of attendants to the fact of their attendance. It may be noted that at Sirdarpore (33 cases) the attendants suffered in proportion to their numbers twice as much as the rest of the regiment, but there were other causes than attendance that might account for this. Four of the persons in attendance during the outbreak in the Bankipur jail (38 cases) were attacked, but the incidence of the disease among attendants was less than among the main body. At Darbhanga (30 cases) four prisoners were attacked while attending their fellows, and the medical officer was of opinion that, as the attendants were seized while actually engaged in looking after the sick in the cholera tents, the attacks were due to such attendance. Now, the percentage of prisoners attacked was about 14, while no less than 20 per cent. of the 20 prisoner attendants suffered; but five sweepers were also employed with the sick, none of whom were attacked, and their inclusion in the calculation lowers the percentage of attendants attacked to 16; while, if the nine members of the jail staff in actual personal attendance on the sick are also included, the percentage of attendants attacked falls below 12.

139. In the Fort at Calcutta (two cases, both fatal) there is a double water-supply, from the municipal mains and from the Havildar's tank. The water from the latter is supposed to be used exclusively for washing, but there is no doubt that it is sometimes used for drinking.

At Barrackpore (1 case, 1 death) the storm-water drainage was said to be defective.

Regarding the occurrence of cholera among native troops, the only sanitary defects among the few reported which are at all likely to have had any effect on the introduction or spread of the disease, were—a mixed water-supply at Trichinopoly; contamination of the river water-supply by the adjacent town,

at Sirur; the proximity to the lines of a filthy tank and a contaminated well at Agar; and deficiency of the water-supply at Jalna.

In this connection, the remarks of the medical officer of the 1st Battalion of the 2nd Gurkhas, regarding the protection afforded to that regiment by a good water-supply, may be quoted:—

“In the present year we have again had cholera freely imported into both battalions, but it quite failed to take root. I consider the history of the cholera outbreaks in this regiment, and the way they have been affected by its water-supply, as of the most supreme interest, and very complete and valuable as one of the many proofs of the water-borne theory of the spread of the disease and the great security and protection a really protected water-supply gives.

Before 1892 the history of the 1st Battalion shows that it invariably suffered terribly when cholera appeared in the Doon, so much so that some years ago the site of its lines and cantonments had to be moved over two miles away from the city,—of course at very great expense.”

The more important sanitary defects reported in connection with the occurrence of cholera in jails include—bad drinking-water at Myingyan; insufficient drinking-water at Damoh; a double water-supply at Bankura, where the prisoners preferred the water of a filthy tank in the vicinity of the jail to boiled river water; the proximity of a contaminated tank at Darbhanga; slight overcrowding at Balaghat; overcrowding in the sub-jails at Patuakhali and Khurda; great overcrowding at Damoh.

140. The effect of movement, when practised, was invariably favourable, not only in respect of the cessation of cholera, but on the general health. In more than one instance the weather was most unfavourable, but the health of the men improved, shewing that, granted reasonable care in the selection of a suitable camping-ground and precaution against unnecessary exposure, troops can be moved without danger and with advantage in all ordinary circumstances. Among the prisoners at Bankipur and at Darbhanga, 18 and 16 seizures, respectively, occurred after the moves; but in both occasions the epidemic ceased within four days after movement.

141. The two cases among Europeans in Fort William are good examples of sporadic attacks in a community. On the early morning of the 29th of March, two warders in the Military Prison were admitted to hospital with the signs and symptoms of cholera. Both cases were typical, and both proved fatal on the evening of that day. There was absolutely no connection between the two warders, one of whom, an elderly man, had his meals with his wife, while the other messed with his brother warders.

The single case at Rurki is an example of ‘administrative’ cholera. A sergeant had been for some time at Hardwar where there was cholera. On arrival at Rurki he was suffering from diarrhœa, accompanied with considerable vomiting, which persisted for four days, when he was admitted to hospital suffering from vomiting and purging, and the possibility of cholera was suspected. There was partial collapse, and moderate cramps, but no suppression of urine or secondary fever, and recovery ensued. Clinically the diagnosis was doubtful, but as the Government Bacteriologist at Agra reported the discovery of the “cholera” microbe in a portion of the dejecta, the case was returned as cholera.

Regarding the outbreak at Benares (13 cases, 8 deaths) the medical officer writes:—

"If one accepts the microbe theory, it would not be difficult to explain the outbreak, as the Government Analyst found them in the wells, in the filters, in the mussacks, in the tanks, and water used for washing-out the milk-pail. It does not explain why the first case should have occurred in the same cot that the case last autumn did, nor does it explain why [the inmates of] three barracks and the hospital escaped, although their drinking-water was equally contaminated. The Bazar with all its accumulated horrors did not give a single case."

Regarding two cases which occurred at Saugor in April in a detachment of 365 men of the Royal Irish Regiment, the medical officer writes:—

"On 24th April, No. 4747, Lance-Corporal H., 2nd Battalion, Royal Irish Regiment, barrack room No. 17, was seized with cholera while on magazine guard.

He began to feel ill about 8-30 A.M., and vomited about the floor, but he did not report sick until 12-15 P.M., when he was brought to hospital in a state of collapse. He died about 7 o'clock the same evening.

On April 25th, about 6 A.M., No. 3373, Private G. R. I., Military Policeman, was brought to hospital suffering from cholera. He had been seized about 10 o'clock on the night of the 24th, and had, through fear of the disease, drunk a quantity of beer. His condition was not noticed until the following morning, when he was brought to hospital in a state of collapse. In neither case could it be ascertained that the men had eaten or drunk anything procured from the *bazaar* in which cholera had been very prevalent for some time previously. Samples of lemonade and drinking water obtained from the barrack and guard-rooms were obtained as well as samples of vomit and stool. These were sent to Professor Hankin at Agra. He reported—

Cholera	bacilli	found	in stool.
"	"	"	in vomit.*
"	"	"	in water from guard-room chatty.
"	"	"	in water from filter in Lance Corporal H.'s room.
"	"	"	in water from filter in Private G.'s room.
"	"	"	not found in samples of lemonade.

The distance between the bungalows of the affected men is over a quarter of a mile. On further enquiry it was found that the hospital corporal who had been sent for the samples of water had by mistake taken one not from Lance-Corporal H.'s filter, but direct from the filter well reservoir itself. The sample from Private G.'s room was taken from a chatti in the room, which had been filled from the filter, but not from the filter direct as he had been ordered."

There was another outbreak of cholera at Saugor which has attracted considerable attention, largely perhaps because of the remarkably complete way in which the infection is said to have been traced†. In the short account which follows, the facts are derived from the official reports (dated, respectively, the 6th and 19th August 1896) submitted by the medical officer of the 14th Bengal Lancers and the medical officer in charge of the station hospital.

On the evening of the 13th July 1896, thirteen officers dined together at the mess-house of the 14th Bengal Lancers. Within four days, nine of the officers and the table-servant of one of them had been seized with cholera or diarrhoea. It will be convenient, in giving a chronological narrative of the seizures, to indicate those attacked by the letters of the alphabet.

A., on reaching his *bungalow* on the evening of the 13th, felt that he had eaten something which disagreed with him, and vomited his dinner. On the 14th he suffered from diarrhoea which subsided on treatment.

* The discovery in vomit of cholera vibrios is sufficiently rare to merit notice. Most authorities agree in stating that vibrios do not occur in the stomach except in regurgitation of the bowel contents. Pfeiffer, however, writing in the 3rd Edition of *Flügge's Die Micro-organismen*, p. 560, says that vibrios occur in the vomit quite exceptionally; and the finding of vibrios on several occasions by Rappin, at Nantes, is noted in Baumgarten's *Jahresbericht* for 1895, page 387.

† British Medical Journal, December 26, 1896, page 1817.

B. was taken ill at 3 A.M. on the 15th, developed the signs and symptoms of Asiatic cholera, and died at 3 P.M. the same day.

C. was taken ill with diarrhœa at 6 A.M. on the 15th, but went out and did his daily work. At 10 P.M. on the 15th, he was found to be suffering from cholera, of which he died on the evening of the 16th.

D. at 6 A.M. on the 15th was seized with vomiting and diarrhœa, which subsided on treatment.

E. was taken ill with diarrhœa on the 15th, and had to leave the mess the same evening owing to a feeling of sickness. His case was diagnosed to be one of cholera, but the attack was not severe, and he recovered.

F. stated that on the 15th he was suddenly afflicted with pain in the bowels accompanied by a feeling of sickness and coldness of the extremities. A dose of chlorodyne put matters right.

G. (the native table-servant) was attacked with diarrhœa and vomiting at 3 A.M. on the 16th; the illness developed into cholera, and he died the same day at 3-30 P.M.

H. was attacked with diarrhœa on the 16th; this was treated and stopped immediately. The diarrhœa, however, recurred on the 17th, was most virulent in character, and did not subside under treatment for four days.

I. was taken ill with sickness and diarrhœa on the afternoon of the 16th. The diarrhœa was of a most virulent character, and did not abate for four days in spite of treatment.

K. suffered at 2 A.M. on the 17th from slight diarrhœa, which stopped at once on treatment.

The limitation of the attacks to persons who were present at a particular dinner-party, of course, cast suspicion on the food and drink which had been consumed there. There were a few cases of cholera in the town of Saugor at the time; but there had been no case recently reported in the cantonment, although some time previously there had been cases there. Some of the servants, including the *masalchi*,* lived in the town of Saugor or its suburbs, but no connection between them and any case of cholera could be discovered. The sanitation of the mess cook-house was excellent. The water, taken from a well which had recently been treated with permanganate of potash, was boiled and passed through a Pasteur filter before use. The milk was obtained from cows which were the property of the mess.

The fact that the *khidmatgar* was attacked led to his being questioned, and was elicited from him that he had eaten the remains of a chocolate cream pudding. He was then asked whether he had eaten anything else besides the pudding, but it is reported that he was "so ill that no definite information could be got from him, beyond the fact that he had partaken of the pudding." Regarding the preparation of this pudding the medical officer of the 14th Bengal Lancers writes:—

"The pudding was made by boiling milk and corn flour, and milk, corn flour and chocolate, straining these materials through a cloth, then pouring it into a tin mould in layers and then cooling it in ice. The only possible way that the microbe could have got into the pudding was by its being strained through a cloth in which cholera microbes were present, or the tin mould itself containing cholera microbes."

Enquiries were then made among the officers who were attacked in order to discover whether they had eaten of the pudding or not. For some reason, the four officers who escaped attack were either not questioned, or their replies

* Scullion.

were not recorded. Definite answers were obtained from seven of the nine who were attacked, but the officers whom we have designated as *I.* and *K.* could not remember whether they had eaten of the pudding or not. Of the seven, three, *viz.*, *B.*, *E.* and *F.*, had eaten the pudding, while four, *A.*, *C.*, *D.* and *H.*, had not. It will be observed that of the three officers who ate of the pudding, two suffered from cholera and the third from slight diarrhœa, while of the four who did not eat of it, one (*A.*) was taken ill directly after the dinner, a second (*C.*) died of cholera, a third (*H.*) had a very virulent attack of diarrhœa, while the fourth (*D.*) had a slight attack.

There is therefore no evidence against the pudding, and if any special enquiry regarding other articles of food or drink was undertaken, no mention is made of it in the reports. On this subject the medical officer of the station hospital, after giving his reasons for rejecting the hypothesis that the source of infection was the pudding, writes :—

“ As all the dishes were cooked, I concluded that the food must have been contaminated between the time it was cooked and the time it was eaten ; and I thought that this contamination was probably caused by cleaning plates, dishes, knives, forks, etc., between the dinner courses with dirty water or foul napkins ; or that microbes might have been conveyed by some of the servants (on their hands or clothes) who might perhaps have been near some case of cholera in the city.”

The Sanitary Commissioner of the Central Provinces, accompanied by the Bacteriologist to the Government of the North-Western and Central Provinces, arrived at Saugor on the 1st of August, eighteen days after the dinner and sixteen days after the outbreak, and the latter proceeded to make a bacteriological enquiry into the cause of the disease.

“ After enquiry Mr. Hankin was of opinion that the fish caught in the Saugor lake and brought alive into the mess had been the means of introducing the cholera microbe into the mess.

The well water was examined and no cholera microbe present.

The milk, no cholera microbe present.

The *nand* of water in which fish were kept alive, *cholera microbe found*.

The water taken from the havresack, no cholera microbe present.

The water in filters before and after filtration, no cholera microbe present.

In the slime lining of the mussack, *cholera microbe present*.

The possibility is that the cook or mates put their hands into the *nand* of water to take the fish out for cooking, and then without drying or washing their hands prepared some food for the table.”

Mr. Hankin's enquiry was under the great disadvantage of being made long after the date of the outbreak, and microbes may have vanished from many places in which they were present at that time. It appears, also, that the *nand* of water had been used every day from the date of the outbreak until Mr. Hankin found suspicious microbes in the water in it. Some such objection to any theory connecting the cholera with the microbes in the *nand* water must have arisen, as a further enquiry was made.*

It was ascertained that there had been cases of cholera among people living on the banks of a brook about six weeks previous to the outbreak.† In

* The following account is taken from a further report by the medical officer, 14th Bengal Lancers, dated Saugor, the 8th November 1896, and two reports by the Bacteriologist, North-Western Provinces and Central Provinces, dated at Agra, respectively, on the 20th and 21st August 1896.

† This date is taken from the cholera register of the 14th Bengal Lancers ; but it is not clear if the cholera cases occurred six weeks previous to the outbreak in the mess or six weeks previous to the date on which water was sent to Mr. Hankin.

this stream the mess dhobie used to wash the mess *jharans* (dish-cloths), laying them to dry on its banks. On the 14th August (1) the washings, in sterile water of three *jharans* used in the mess house for cooking purposes, and (2) water of the stream in which they had been washed, were sent to Mr. Hankin, who discovered cholera microbes in the water (1) in which the *jharans* had been washed. He is reported to have subsequently found cholera microbes in the sand and mud from the banks of the stream.

The theory of the outbreak based on these later discoveries was that the *jharans* had become infected when drying, and had, in turn, infected the food in the cook-house.

However much we may admire the ingenuity of this hypothesis, it must be admitted that there are few facts in its support.

Small-pox.

142. The deaths from small-pox in 1896 in the parts of India under registration numbered 141,443, or 95,710 more than in the preceding year, the ratio per mille of population being 0·65 against 0·21. The increase in ratio was general, affecting all provinces, but was greatest in the case of Ajmere-Merwara and the Punjab, which had also the highest ratios.

The mortality rose month by month from the beginning of the year up to its maximum in May, then sank month by month to its minimum in October, and finally rose again to the end of the year; and in the individual provinces the general course of the mortality curve was similar. Of the total deaths of the year, 64 per cent. occurred in the five months, March—July, and nearly 8 per cent. in December.

The following shews the mortality from small-pox in the different provincial registration areas of India in 1896, month by month:—

Statement showing the deaths from SMALL-POX registered in the different Provinces by Months during the year 1896.

PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.	
													1896	1895	1896	1895
Bengal . . .	1,037	1,060	1,659	1,740	1,846	2,322	888	598	302	314	563	1,059	13,388	13,020	·19	·18
Assam . . .	433	385	547	582	808	752	399	272	266	236	301	463	5,444	3,849	1·08	0·77
North-Western Provinces and Oudh.	710	1,284	2,869	5,176	7,854	8,008	5,778	2,794	1,206	785	2,011	4,296	42,771	1,968	·91	·04
Punjab . . .	3,274	3,563	4,918	5,967	8,047	6,581	4,192	2,081	1,040	1,048	1,753	2,620	45,084	8,334	2·19	0·41
Central Provinces .	619	717	1,022	1,261	1,359	874	614	402	147	146	243	343	7,747	6,644	0·82	0·70
Berar . . .	84	79	147	169	92	66	44	36	12	15	13	53	810	556	·28	·20
Lower Burma .	79	143	275	227	255	187	151	129	100	45	39	39	1,669	1,540	0·37	·34
Madras Presidency .	675	847	1,182	910	794	682	682	598	533	536	780	1,191	9,410	5,111	·29	0·15
Bombay „ .	465	701	1,385	1,392	939	578	296	130	84	76	158	239	6,443	2,299	0·34	0·12
Ajmere-Merwara .	628	834	1,174	730	284	74	43	18	6	6	14	10	3,821	754	7·05	1·39
Coorg . . .	...	...	3	4	3	2	4	2	...	...	...	...	18	7	0·10	·04
Mysore . . .	152	250	414	429	392	483	634	502	323	392	434	433	4,838	1,651	1·00	·34
TOTAL .	8,156	9,863	15,595	18,587	22,673	20,609	13,725	7,562	4,019	3,599	6,309	10,746	141,443	45,733	·65	·21

143. The number of deaths recorded as due to small-pox in Bengal in 1896 was 13,388, or 0·19 per mille, as compared with the 0·18 of the previous year, and with the average of the past ten years, which was 0·15. The only district in which the disease can be said to have prevailed in an epidemic form was Patna, in which the death-rate was considerably in excess, not only of that of the previous year, but of that of the decennium. That district is very backward in vaccination, and it is to that cause, says the Sanitary Commissioner, that the high rate of mortality is to be attributed. The Civil Surgeon of Patna has no hesitation in saying that the disease was originated and spread by the practice of inoculation. Indeed, he has been assured that the Government vaccinators (of the *mali* caste) are quite willing to oblige by performing either vaccination or inoculation according to the wishes of the children's guardians. Death-rates over 0·50 per mille were recorded in the districts of Patna (1·20), Cuttack (0·70), Shahabad (0·69), and Puri (0·66); in eighteen districts the rates varied from 0·39 to 0·10; and in twenty-three from 0·09 to 0·001; while in the Khulna district only there was no death. The urban death-rate was 0·31, as compared with a rural rate of 0·18. Mortality ratios of over 2 per mille distinguished the towns of Raniganj in the Burdwan district, Patna in the Patna district, Deoghur in the Sonthal Perganas, Roserah in the Darbhanga district, Bhadreswar in the Hooghly district; and the rural areas of Maner in the Patna district, Aul in the Cuttack district, Khajri in the Midnapore district, Phulwari and Patna in the Patna district, and Gop in the Puri district.

The number of deaths among children under 1 year of age rose from 1,924 in 1895 to 2,805 in 1896; and among children from 1 to 12 years of age from 4,707 to 7,026; and the percentage of children's deaths in the total small-pox mortality of all classes from 50·92 in 1895 to 73·43 in 1896.

Among the European seamen in the port of Calcutta 1 non-fatal case occurred against 9 cases with 1 death in the preceding year. Among the native floating population there was 1 death from small-pox against 5 in 1895, the respective ratios being 0·03 and 0·19 per mille.

144. In Assam there were 5,444 deaths from small-pox registered during 1896, against 3,849 in 1895, and against 2,370, the average of the five years 1890—94. The death-rate was 1·08, as compared with 0·77 in the previous year. The highest district death-rate, 4·16 per mille, representing 1,058 deaths, was recorded in Lakhimpur. The disease had been prevalent to a less extent in the preceding year, spreading from the town of Dibrugarh, into which it had been introduced by three passengers who came in a trading steamer from Calcutta. The next highest death-rate was registered in the Kamrup district, where 1,845 deaths yielded a ratio of 2·91 per mille. The outbreak began in the preceding year at the town of Barpeta, into which it was brought by a student from Calcutta. The inhabitants of Barpeta refused to allow themselves or their children to be vaccinated; and the consequence was that the outbreak was not speedily stamped out, and 60 deaths occurred in 1896. The Civil Surgeon of Kamrup states that the increased small-pox mortality was chiefly due to deaths from chicken-pox and measles having been returned as deaths from small-pox; but, as the Sanitary Commissioner points out, though deaths from measles are doubtless frequently returned under small-pox, the mortality from genuine chicken-pox cannot have been large. In the Sibsagar district 1,024 deaths from small-pox

were recorded, as against 37 in 1895. In nine towns there were no deaths from small-pox, and in the others the mortality ratio ranged from 5·05 at Barpeta, and 4·82 at North Lakhimpur, to 0·27 at Silchar. Among infants under one year of age there were 1,119 deaths, more than 20 per cent. of the total, and among children between one and twelve 2,914 deaths, more than 53 per cent. of the total.

145. The lowest recorded death-rate from small-pox in the twenty-six years, Small-pox in the North-Western Provinces and Oudh. 1871—1896, was 0·04 from 1,968 deaths in 1895. But in 1896 there were 42,771 deaths from small-pox, giving a ratio of 0·91 per mille. This is a considerable rise, and was anticipated by the Sanitary Commissioner; so large a proportion of the population being still unprotected. There are periods of exacerbation of the disease after intervals during which susceptible material has been accumulating. Considerable difficulty is experienced in persuading adults to submit to revaccination, principally because it temporarily cripples them, and prevents them from following their usual occupations. The districts with mortality ratios higher than 2 per mille were Allahabad (4·10), Unao (3·85), Bareilly (2·39); and there were 15 districts with ratios over 1 per mille, 9 with ratios not below 0·5, 18 with ratios over 0·05, only three with ratios under 0·05, and no district without a small-pox death. The highest ratios in towns were in Nehtor (12·86) and Kiratpur (10·05) in the Bijnor district, and in Aonla (10·10) in the Bareilly district. But the epidemic was very widespread, and 77 out of 100 principal towns returned cases of this disease. The urban mortality was 0·86 as compared with 0·92 in the rural areas.

Among infants under one year 14,410 deaths occurred, against 580 in the previous year; and among children under 12 years of age but not under 1 year 26,443, against 1,329. Again, the percentage of deaths of the former class of children to the total small-pox mortality of all classes of the population was nearly 34 against 29 in 1895, and that of the latter class of children to the same, nearly 62 against 67.

146. A most severe epidemic of small-pox visited the Punjab during the Small-pox in the Punjab. year, the total number of deaths registered being 45,084, and the death-rate 2·19 per mille of population; and it was the severest epidemic since 1879. The disease broke out in a virulent form in December 1895, and, in accordance with the experience of former years, attained its maximum intensity in May, after which there was a steady decline in mortality down to the minimum in September-October, the numbers again rising as the cold weather set in. The highest district death-rate was in Ferozepore (5·75), and the lowest in Kangra (0·05). Besides these, four districts had ratios over 4 per mille, five over 3, four over 2, seven over 1, four over 0·5, and five over 0·05. The districts with high mortality were not, with the exception of Gujrat, among the best vaccinated districts of the Punjab; but the five districts with the lowest mortalities were so. The remarkable immunity of Kangra is attributed by the Sanitary Commissioner to the fact that it stands first in order of the best vaccinated districts in the province.

The rural death-rate was 2·18, and the urban 2·36. In the case of towns the highest ratios were those of Kasur (9·61) and Bhera (9·30), and the lowest that of Dera Ghazi Khan (0·08). Two towns had ratios over 9 per mille, three

over 8, two over 7, two over 6, two over 4, five over 3, eight over 2, seven over 1, eight over 0·5, and six over 0·05.

Out of the 45,084 persons who died from small-pox, 13,065, or nearly 29 per cent., were children under 1 year of age; and 26,192, or over 58 per cent., children between the ages of 1 and 12. It is evident, therefore, that many children must have been unprotected by vaccination; and the Sanitary Commissioner has taken steps to increase vaccination in the districts in which small-pox mortality was highest.

147. The number of deaths from small-pox in the Central Provinces was 7,747 against 6,644 in 1895; and the ratio per 1,000 of population was 0·82 against 0·70 in 1895, and against 0·25, the quinquennial mean. The disease prevailed with greatest intensity in the hottest month (May), and declined with the approach of the rains. The increase of mortality affected every district without exception, the greatest numbers occurring in Wardha, Chanda, Bhandara and Raipur. The highest ratio to population was that of Wardha (2·63), and the lowest that of Burhanpur (0·04). One district had a ratio of over 2 per mille, four of over 1, eight of not less than 0·5, six of over 0·05, and one of under 0·05. The rural mortality was 0·85, and the urban 0·40. The towns with the highest ratios were Lakhnadon (8·41), Arvi (7·54), and Warora (4·29). Mohgaon was the only other town that had a ratio over 3 per mille, and there were 29 towns which recorded no deaths.

In the 7,747 persons that died from small-pox were included 1,943 children under one year of age, or over 25 per cent., and 3,536 children between the ages of one and twelve, or nearly 46 per cent.

148. In Berar the total number of deaths registered from small-pox was 810 against 556 in the previous year; while the death-rate per mille was 0·28 against 0·20 in 1895, and against 0·1, the quinquennial mean. As usual, the disease prevailed with greatest intensity in the three months March-May, declined thereafter, but rose again in the cold months at the end of the year. Among districts Amraoti had the highest death-rate (0·6), and Buldana the lowest (0·008). The Amraoti district ratio was yielded by 415 deaths, or more than half the total number recorded in the administration. In this connexion the Sanitary Commissioner notices that in Amraoti influenza deaths, under the native name "*kapsi matha*", were at first registered under small-pox, and that, though the mistake was remedied as much as possible, yet it probably served in some degree to raise the mortality under the head of small-pox in that district.

The rural mortality was 0·2, the urban 0·7; but the disease, though more localised in towns than rural circles, was pretty general throughout the districts most affected. The towns with the highest ratios were Pathur (5·8) and Bulgaon (4·7), and the greatest number of cases occurred in the towns of Pathur and Akote.

Out of the 810 persons who died from small-pox 162, or 20 per cent., were under one year of age, and 398, or over 49 per cent., between 1 and 12.

149. The number of deaths from small-pox in Madras in 1896 was 9,410 against 5,111 in the previous year; and the death-rate was 0·29 per 1,000 of the population against 0·15 in 1895, and against 0·8, the quinquennial mean. The highest district ratio

was that of Kurnool (1·8), and the lowest that of Coimbatore (0·02). There were in all three districts with ratios over 1 per mille, one over 0·5, thirteen over 0·05, and five 0·05 or less. The urban ratio was the same as the rural ratio, namely, 0·3 per mille. The towns with the highest ratios were, in order, Vellore (5·3), Arcot, Nandyal, and Gudiyattám.

Children under one year of age furnished 2,245 deaths, or nearly 24 per cent. of all the persons who died from small-pox; and children between the ages of one and twelve 3,632 deaths, or nearly 39 per cent.

150. In Coorg the total number of deaths from small-pox registered was 18 against 7 in the preceding year; and the ratio of deaths per 1,000 of population was 0·10 against 0·04 in 1895; and against 1·90, the mean of the quinquennium. Deaths were recorded in only 11 out of 517 villages in the province. The rural death-rate was 0·11, but there was no urban mortality. No children under 1 year of age died of small-pox, but five, that is nearly 28 per cent. of all the persons that died of it, succumbed between the ages of 1 and 12.

151. In the Bombay administration there were in the year 1896 deaths to the number of 6,443 against 2,229 in the preceding year; and the ratio was 0·34 against the 0·12 of 1895, and the 0·18 of the decennium. As in 1895, and as in the five years preceding that, the disease reached its maximum intensity in April, then declined, but rose again in the end of the year. The highest ratios were in the Western and in the Gujrat Registration Districts, and the extreme district ratios were 0·94 for Khandesh and 0·01 for Sholapur and Bijapur. Five districts had ratios over 0·5 per mille, sixteen not under 0·05, and four under 0·05. The urban mortality ratio was 0·70, while that of the rural areas was 0·30. The highest town ratios were those of Godhra (10·55), Dhulia (3·02), and Umámarkot (2·97).

The total 6,443 deaths from small-pox include 1,901 of children under one year of age, or over 29 per cent., and 3,336 of children between the ages of one and twelve, or nearly 52 per cent.

152. There were 1,669 deaths from small-pox during the year, and the death-rate was 0·37 per 1,000, as compared with 0·34 in 1895, and with 0·40, the mean of the previous five years. The disease persisted throughout the year, but was most fatal in March, May, April and June, and least so in November, December, October and January. The three districts of the Arakan Division, the Prome district, and the Mergui district had no small-pox mortality. The highest ratio, 1·17, was that of the Hanthawaddy district, and the lowest ratios, 0·01, that of Tavoy and that of Thayetmyo. Three of the districts had ratios over 1 per mille, none over 0·5, 7 over 0·05. The rural death-rate was 0·36, and the urban 0·47. The highest town ratios were 3·82 at Kyangin, and 1·13 at Rangoon.

Out of the 1,669 persons who died from small-pox 247, or nearly 15 per cent., were under 1 year of age; 814, or nearly 49 per cent., between the ages of 1 and 12.

Unprotected coolie immigrants from India are reported by the Sanitary Commissioner to be a prolific field for the propagation of small-pox, and proposals for remedying the evil are now under consideration.

Plague.

153. In the latter part of 1896 bubonic plague appeared in Bombay. By the end of the year, 2,911 cases were reported throughout the Presidency, of which 2,219* were fatal, equal to an annual death-rate of '12 per thousand of the population. A full account of the outbreak will be found elsewhere†, and the following paragraphs contain only an outline of the principal events which occurred in 1896.

154. In the Bombay Presidency, scarcity and high prices consequent on abnormal meteorological conditions determined a migration specially of the very poor people to the City of Bombay in search of work. The sanitary condition of the city itself was bad. For years past the drains have been insufficient to carry off the water brought into the city, and, in 1896, the state of the drainage was rendered much worse than usual by abnormal meteorological conditions. The total rainfall, although less than the average, was abnormally distributed, and instead of falling during about four months lasted for six weeks only. In June, July and August there was an aggregate excess of 27 inches beyond the average, and, to make matters worse, an obstruction formed at the sewage outfall during a great storm, when it was impossible, on account of the heavy sea that was running, to send men to remove it. In consequence the low-lying portions of the city were flooded with storm-water and sewage, and in places not reached by direct sunlight the walls of houses and lanes remained damp for long afterwards, in spite of the excessive heat of the autumn. In September, instead of a rainfall of eleven or twelve inches, there was only about an inch and a half, an amount which was, of course, inadequate to wash away the stagnating impurities. October was dry and hot.

In Bombay the poor live in the most insanitary conditions, crowded together in high buildings called *chawls*. These *chawls* or tenements may run up to seven storeys, and the unit of construction is a long corridor with rooms opening on each side. In the corridor, either at one end or in the centre, is situated a water-tap with bathing-platform, and alongside it a latrine with two or three seats. The whole tenement is built up of a congeries of these corridors and rooms, and contains from 500 to 1,000 individuals. The only space between each tenement is a gully sufficiently wide to admit a sweeper. In most of the corridors and rooms, either from the absence of openings or the obstruction of the existing ones, there is absolutely no light admitted and consequently no ventilation. It is stated that 70 per cent. of the population live in such houses.

The conditions in Bombay in August, then, were overcrowding of multitudes of very poor people in unventilated, damp and filthy houses; the subsoil sodden with sewage, and the drains in many places choked; add to this the putrefying of great quantities of food-grains in the hot moist air of flooded cellars.

The abnormal climatic features of the year had made the city very unhealthy, and in June, July and August, the period immediately preceding the discovery of the existence of the plague, the death-rate had been high,—much higher than the quinquennial average for these months.

The high mortality during this period has been held to indicate that

* The figures for Bombay City are taken from the Report of the Municipal Health Officer. Figures for the Presidency, outside Bombay City, are taken from the Report of the Sanitary Commissioner for the Government Bombay.

† *The Plague in India, 1896-97.* Government of India, Home Department.

plague, although undiscovered, was present in the city, and there are those who believe that the disease was present in May. There certainly are two phenomena which give colour to this belief ; one the existence of cases of a mysterious and fatal fever which were seen by native practitioners from May onwards ; the other, the very wide distribution which the plague was found to have when its existence in the city was recognised. But the main argument, the comparatively high mortality during the monsoon months, falls to the ground in view of the fact that, although the death-rate in June, July and August 1896 was higher than the average death-rate during the same period in the preceding quinquennium, it was very considerably lower than in these months in 1894. In both years cholera was prevalent, in the earlier year slightly more so than in 1896, although the excess is not sufficient to account for the higher death-rate in 1894. Regarding the incidence of the mortality, the Health Officer points out that the high rate in August was due to the increase in the number of deaths among persons who were not natives of Bombay City. It is remarkable that, although the total mortality rose, the increase until the end of November was due to deaths among persons born outside of Bombay, while the number of deaths among those born in the city actually fell. Even in December, when there was an enormous rise in the total mortality, it was mainly due to deaths among outsiders.

When plague was detected, the distribution of cases indicated that it must have been present in the city for a considerable time. The failure to diagnose early cases is not extraordinary in view of the prevalence of a pneumonic type of the disease, and of the existence in Bombay, during recent years, of cases of fever with glandular enlargement.

As the date of the occurrence of the first case cannot be determined, the place of origin remains unknown. Its introduction has been ascribed to pilgrims from Garhwal who are said to have brought it from the Himalayan endemic area. In the absence of any positive evidence, it may, perhaps, be assumed that the place of origin was China ; and there is possibly greater likelihood of the disease being brought from a place where it was raging epidemically than from any endemic area.

On the 10th of August, the Municipal Health Officer heard of the occurrence of two cases of fever accompanied by enlarged glands in the neck. On the 21st and 24th August, Dr. Ismail Jan Muhammad saw two cases in which the patients suffered from small glandular enlargements in the groin, lung complications, high fever and delirium. A case of bubonic fever was registered on the 31st of August. The first public announcement of the epidemic presence of the disease is due to Dr. Viegas, a private practitioner, who saw a case on the 18th of September, and diagnosed it to be plague. The existence of the disease in the city was officially intimated to the Municipal Commissioner on the 23rd September.

Whatever may be the actual date of the commencement of the epidemic, it was very widely spread in September, and before the end of that month cases occurred in no less than 21 of the 32 districts into which the city is divided. In September the effect of plague deaths on the death-rate was very marked, and the mortality rose not only far above the mean for September of the previous quinquennium, but far above the September mortality of any of the years composing it. The excess mortality was not, however, shown as plague, for only 79 deaths from that disease were recorded, but as "fever," and among the

diseases returned under the heading "all other causes," which included a very much larger number of deaths from affections of the respiratory organs than usual.

The epidemic began in Mandvi, a densely populated quarter situated immediately to the north of the Esplanade ward, and on the east of the centre of the city. It was in this ward, where conditions were very favourable for its development, that the epidemic was most severe in 1896. From Mandvi the disease spread, and in September, as we have seen, cases were discovered in 20 other wards of the city. In October five more wards were attacked, Second Nagapada, First Nagapada, Kharatalao, Mahalaxmi and Esplanade. In November the epidemic had spread to Walkeshwar, South Fort, Upper Colaba and Chowpatti; and in the beginning of December the remaining two wards, Mahim and Sewree, were attacked.

In September 135 cases and 79 deaths were reported. In October the number of cases had risen to 406, and the deaths to 313. In November the numbers of cases and deaths, 339 and 273, were considerably lower, a lull which raised hopes that the epidemic might speedily die out; but in December, an enormous rise in the number of cases to 1,664, with a corresponding increase in the number of death to 1,271, showed that these hopes were vain. The directions taken by the epidemic were generally west and north, the invasion of many districts being heralded by the immigration of rats. Dr. Weir is of opinion that the disease was carried from ward to ward by the rats, stating in support of his belief that the disease spread in the directions in which rats migrated, rather than the direction taken by the dispersing people. However this may be, the distribution of the disease appeared to follow groups of houses and was hardly ever found evenly distributed over a district. The death-rates were highest in Mandvi (308 deaths, or 8.25 per 1,000 of the population), Kamathipura (227 deaths, or 7.77 per mille), Middle and Lower Colaba (77 deaths or 5.65), and lowest in Upper Colaba and Esplanade, in each of which only one death was reported, and in South Fort where there were only two. It is remarkable that several of the most populous wards in the city showed comparatively very low death-rates from plague, but this may be accounted for by the dispersion of the people in the city itself, and by the flight from the city of enormous numbers. The estimated number that left Bombay in October was 20,000, and in November and December 171,500.

On the 29th September the Government of Bombay deputed their chief medical authority, the late Surgeon-Major-General Cooke, to enquire into the nature of the disease. He reported that he had seen about 20 cases of bubonic fever. Plague was officially declared to be present in the city, and the Government of India were informed. Instructions were immediately issued by the Government of India to M. Haffkine to proceed to Bombay and make a thorough bacteriological enquiry into the nature of the disease. M. Haffkine's examination confirmed the results already obtained by Dr. Surveyor and Surgeon-Captain Childe, and his report reached the Government on the 13th of October. Meanwhile preventive measures were being energetically undertaken by the municipal authorities. At the time of Surgeon-General Cooke's inspection he found that sea-water was pumped through the sewers all night by means of a powerful pump, and cleansing, disinfection and limewashing of walls were in active progress, fire-engines being employed in the work. Surgeon-General Cooke suggested that the sanitary and medical staff of the Municipality should be increased; that the sick should be segregated in hospital; that the bedding used by the sick, or found in

the houses or rooms occupied by them, should be thoroughly disinfected or burned; that more complete arrangements for the carting away of filth from the sewers should be made; and that measures should be taken to secure the early detection of cases, should they occur in suburban municipalities.

Before the end of September the Local Government had appointed a Committee, consisting chiefly of medical officers of the Government and private medical practitioners, of which the Municipal Commissioner was Chairman, to concert remedial and preventive measures. At the first meeting at the end of the month, Surgeon-General Cooke's proposals were considered. The late Surgeon-Major Manser insisted on the necessity for the complete disinfection of every house in which cases were known to have occurred and suggested the removal of the inhabitants of such houses to empty buildings or tents on the Port Trust Estate. The Chairman pointed out that this could not be done unless special powers were obtained from Government, and a resolution was adopted by the meeting that application for such powers should be made. On the 2nd of October wide powers were conferred by Government on the Municipal Commissioner to enable him to take whatever action was found to be necessary to check the epidemic. The Corporation voted sums of money to defray the cost of sanitary measures, and a large additional medical staff were employed to carry out the extensive operations advised.

On the 6th of October the Municipal Commissioner issued a proclamation, under section 434 of the Municipal Act, making special provision for the removal to hospital of those infected, and for the evacuation and cleansing of infected houses. This proclamation excited the wildest terror among the people; many fled, small riots occurred, and a great danger threatened, for the conservancy establishment became affected by the general unrest and a strike among them, which must have been attended by appalling results, was feared.

In view of these circumstances, the original orders were modified, and it was provided that the sick should not be moved if they were resident in houses in which they could be isolated in a reasonable degree, and could receive proper attention. Assurance was at the same time given that every allowance would be made by the officials of the Health Department, when compelled to enter houses, for the customs enjoined by caste rules. On the 30th of October these conditions were further modified by the statement that the foregoing notifications had been issued in view of a great increase in the number of cases of plague; and it was further promised that no person would be removed to hospital who could be properly treated and segregated at home, and that, in any case, no action would be taken except upon the certificate of a duly qualified practitioner.

These orders virtually abolished compulsory legal segregation of the sick; but efforts to secure isolation were continued, and it was sought to attain by persuasion what it appeared impossible, in Bombay at least, to attain by legal compulsion. Private hospitals were opened, but the people seemed to dread removal to them almost as much as to the Government hospitals; while those residing in the neighbourhood where hospitals were established raised an outcry that their houses were being infected. It was not until December that private hospitals became at all successful.

In the meantime, the Government of Bombay by a resolution, dated the 13th October, appointed a scientific committee to enquire into the nature of the plague. Surgeon-Major Manser was appointed President, and undertook an

enquiry into the treatment of plague by drugs. Surgeon-Captain Childe undertook the study of the general pathology of the disease; Mr. Hankin, the study of the behaviour of the microbe of plague in nature; M. Haffkine, the general bacteriology, and, specially, the questions of immunity and of protective and therapeutic inoculations; Dr. Surveyor the study of the disease in rats.

In November and December the work of cleansing and disinfecting was carried on with the greatest energy; but, aided though these measures were by the great exodus of the population, without making any perceptible headway against the epidemic, although it may be believed that, but for these efforts, the mortality would have been enormously greater than it was.

155. The exodus of the people was no doubt of great advantage to Bombay, but it was a terrible danger to the rest of the country; many persons fled while actually suffering, and many fell sick on the way to, or after they had arrived at, their destinations. The municipalities in the districts had, of course, been warned, and those on the line of rail did what they could to keep out infection by instituting medical inspection of passengers from Bombay. Inspections were attended by considerable success, but could not be effective in the absence of legal powers, and before the end of the year there had been cases reported, or discovered, in 47 places in the Presidency, as shown in the following list, taken from the report by the Sanitary Commissioner for the Government of Bombay:—

NAME OF			ATTACKS.			Deaths.	Date of first appearance.
District.	Taluka.	Town or Village.	Imported.	Local.	Total.		
Ahmedabad	Daskrohi	Ahmedabad	48	2	50	26	25th September.
Poona	Haveli	Poona, Suburban	48	...	48	34	2nd October.
Thana	Salsette	Thana	1	...	1	1	8th do.
Do.	Kalyan	Kalyan	1	...	1	1	Do.
Khandesh	Dhulia	Dhulia	1	...	1	1	15th do.
Thana	Salsette	Bandra	4	98	102	70	26th do.
Kolaba	Mahad	Wahur	1	1	2	1	29th do.
Khandesh	Bhusaval	Kandari	5	...	5	4	1st November.
Poona	Haveli	Poona Cantonment.	1	...	1	1	12th do.
Ahmedabad	Gogo.	Tansa	1	...	1	1	17th do.
Do.	Do.	Kuda	1	...	1	...	Do.
Do.	Do.	Gogo.	2	...	2	2	Do.
Surat	Bulsar	Bulsar	2	...	2	2	21st do.
Kolaba	Nagotna	Nagotna	3	...	3	3	26th do.
Thana	Umbergaon	Maraoli	1	...	1	1	29th do.
Do.	Salsette	Kurla	5	...	5	4	2nd December.
Do.	Umbergaon	Umbergaon	1	...	1	1	3rd do.
Do	Do.	Narayangol	1	...	1	1	5th do.
Surat	Jalalpur	Khursad	7	...	7	7	6th do.
Do.	Do.	Abruna	3	...	3	3	Do.
Do.	Surat	Surat	6	...	6	4	8th do.
Broach	Kapadvanj	Kapadvanj	6	...	6	5	10th do.
Karachi	Karachi	Karachi	...	63	63	59	Do.
Thana	Bhiwandi	Bhiwandi	2	9	11	10	12th do.
Ahmednagar	Nagar	Ahmednagar	6	...	6	4	Do.
Sholapur	Sholapur	Sholapur	1	...	1	1	17th do.

NAME OF			ATTACKS.			Deaths.	Date of first appearance.
District.	Taluka.	Town or Village.	Imported.	Local.	TOTAL.		
Sholapur . .	Pandharpur	Pandharpur . .	1	...	1	1	17th December.
Broach . . .	Broach . . .	Broach . . .	5	...	5	5	Do.
Kolaba . . .	Roha . . .	Sadsai . . .	1	...	1	1	18th do.
Poona . . .	Haveli . . .	Poona City . .	4	...	4	4	Do.
Surat . . .	Pardi . . .	Udawad . . .	2	...	2	2	19th do.
Kaira . . .	Nadiad . . .	Nadiad . . .	1	...	1	1	20th do.
Do.	Anand . . .	Anand . . .	3	...	3	3	Do.
Kolaba . . .	Pen	Wadkhale, Peta Kalve . . .	1	...	1	1	21st do.
Do.	Panvel . . .	Panvel . . .	5	..	5	5	22nd do.
Surat . . .	Jalalpur . .	Medhar . . .	1	...	1	1	23rd do.
Thana . . .	Bassein . . .	Agashi . . .	2	...	2	2	24th do.
Do.	Wada . . .	Wada . . .	1	...	1	1	25th do.
Kolaba . . .	Alibag . . .	Alibag . . .	1	...	1	1	Do.
Hyderabad . .	Kandiarao . .	Halamni . . .	1	...	1	1	27th do.
Surat . . .	Jalalpur . . .	Panar . . .	1	...	1	1	28th do.
Thana . . .	Bassein . . .	Watar . . .	1	...	1	1	29th do.
Broach . . .	Kapadvanj . .	Charkalasi . .	1	...	1	1	Do.
Thana . . .	Bassein . . .	Bassein . . .	1	...	1	1	30th do.
Shikarpur . . .	Shikarpur . .	Shikarpur . . .	1	...	1	1	Do.
Thana . . .	Salsette . . .	Pahadi . . .	1	...	1	1	31st do.
Kolaba . . .	Karjat . . .	Halnali . . .	1	...	1	1	Do.
			194	173	367	283	

There can be no doubt that the numbers of cases and deaths are much understated. Many cases were concealed, and deaths were returned as due to causes other than plague. As the figures stand, however, it may be noticed that the reported case-mortality in places outside Bombay was nearly 10 per cent. higher than in the city itself. Notwithstanding the large number of places into which the disease was introduced, in only five, one of them Bandra, practically a suburb of Bombay, had the pestilence taken root before the end of the year.

Ahmedabad was the first place outside of Bombay in which a case was reported. The first case (A), a very slight one terminating in recovery, occurred in the person of a Musalman who had been working in Mandvi, in Bombay. On the 18th September he suffered from slight glandular enlargement and fever, and on the 25th left Bombay for Ahmedabad, and was under the treatment of a local practitioner there for eight days. On the 4th of October he was seen by the

Health Officer, who considered the disease from which he was suffering to be plague. The next two cases (B and C) were indigenous, and no connection whatever could be traced between them and the first case. The origin of the infection could not be traced. One of the men had not recently been out of Ahmedabad. He was taken ill on the 28th September and died on the 3rd of October. The other had returned from Wadhwan, in Kathiawar, on the 17th September, and was taken ill after the 26th September—the exact date is not stated, and died on the 5th of October. The houses of A and C were disinfected, and the hut in which B had lived was burnt. The city was cleansed. A staff was engaged to examine passengers from Bombay; arrangements made to disinfect luggage and goods at the railway station; and an isolation hospital prepared. No other indigenous case was reported before the end of the year. Nine imported cases were detected at the railway station in October; none in November; but 38 in December. Of the 50 cases which were discovered, 26 were fatal.

At Poona, from the 30th of September onwards, two medical men and four assistants were posted at the railway station to examine passengers. Four cases were detected at the station in October, one in November, and 43 in December, besides four cases in the city and one in the cantonment. The sick were isolated, but, in the absence of a law authorising compulsory measures, great difficulty was experienced in persuading the relatives and friends of the sick to allow them to be taken to isolation hospitals.

The first case at Bandra was reported on the 16th October. Isolation and other measures were recommended, but the municipal authorities were slow to move, the people opposed all measures, and plague progressed.

156. The first case was reported in Karachi on the 10th of December. Karachi had defended itself against Bombay by quarantine rules, and it is remarkable that the origin of the first two cases could not be traced to Bombay or to any place outside Karachi, although most minute and careful enquiries were made.

Here the municipal authorities acted with great promptitude and gave effect to all the measures of prevention which were recommended for their adoption. Unfortunately compulsory segregation was not possible. In spite of much concealment, by the end of the year reports of no less than 63 cases and 59 deaths were received.

157. To prevent the extension of the disease to other provinces, the Government of India modified existing railway rules regarding infectious diseases so as to include plague, and instituted railway inspections at the large railway stations and important junctions; while measures of quarantine were adopted at the ports of Aden, Calcutta, Madras and Rangoon.

In all the larger towns special sanitary inspections were made, and so far as possible the towns were cleansed and put in a more favourable position to keep out plague; while isolation hospitals were got ready for the prompt segregation of persons who might be attacked. No indigenous case of plague was reported in India outside the Presidency of Bombay in 1896; but there were four imported cases in Rajputana and one in the Central Provinces.

158. The most pressing danger seemed to be the infection of Calcutta, on account of the constant communication with Bombay, and the extremely filthy and overcrowded

condition of great portions of the town. Under the orders of the local Government, a strong Medical Board was organised to deal with all matters appertaining to the prevention of plague, and special health officers were appointed to carry out sanitary surveys of Calcutta, Howrah and adjacent municipalities.

159. Great alarm was occasioned in October by the alleged discovery of cases of plague in Howrah and Calcutta. The cases of sickness had some clinical resemblance to slight attacks of genuine plague; but the medical men who made the diagnoses relied mainly on the discovery, in blood and serum taken from the sick, of a diplobacterium, which they believed to be the specific microbe of plague.

A closer examination of the antecedents of, and clinical symptoms exhibited by, the sick, which was undertaken by the Inspector-General of Civil Hospitals, did not support the diagnosis,—even of *pestis ambulans*: and the bacteriological enquiry, conducted at the instance of the Medical Board, by one of their members, Dr. D. D. Cunningham, F.R.S., Special Assistant to the Sanitary Commissioner with the Government of India, effectually disposed of the alleged discovery. Dr. Cunningham showed (*a*) that the blood in which the diplobacteria were discovered had been exposed to external contamination; (*b*) that the bacteria isolated differed from each other and from the genuine microbes of plague; (*c*) that no microbes at all could be cultivated from specimens of blood taken from the suspected cases when proper precautions to avoid contamination were observed; and, finally, (*d*) that the death of an animal into which a culture was injected proved nothing, as the quantity of decomposing fluid injected was sufficient to cause death from blood-poisoning.

Dr. Cunningham, in addition, demonstrated the fact that the alleged “plague bacillus” might be discovered in specimens of the blood taken from healthy animals, if the blood was exposed to the air for a short time.

Fevers.

160. The total number of deaths registered under the heading “fevers” rose from 4,266,293 in 1895 to 4,578,944 in 1896, and the ratio per 1,000 of population from 19.53 to 21.05. The months of greatest mortality were March, January, and December, and those of least mortality, July, June, and May. Each of the first nine months of 1896 had more deaths, and each of the last three fewer than the corresponding month of 1895. The increase over the previous year was specially marked in March. It seems possible that the reduction in the last three months may have been due to the comparative absence of malaria in a dry year; and that the increase in the earlier months may have been due to the inclusion in the statistics of diseases then prevalent, such as influenza, chest complaints, small-pox, cholera, etc.

The greatest increase was in the Central Provinces, where also certain districts had higher mortality ratios than in any other province, ratios between 50 and 60 per mille. The lowest district maximum was 15 per mille in Madras. Berar, Madras, and Ajmere-Merwara had fewer deaths and lower ratios than in 1895. In the North-Western Provinces the urban death-rate was higher than the rural, in Madras it was the same as the rural, while in all the other provinces it was, according to expectation, lower than the rural.

The following table may be consulted not only for this, but also for the succeeding paragraphs dealing with fevers :—

Statement showing the deaths from FEVERS registered in the different Provinces by Months during the year 1896.

PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.	
													1896.	1895.	1896.	1895.
Bengal . . .	149,889	158,625	201,596	150,627	126,154	154,749	118,055	130,923	125,900	120,694	154,761	168,252	1,760,225	1,634,254	24'77	22'99
Assam . . .	8,212	7,394	7,789	7,067	9,251	10,282	9,011	8,054	7,773	8,429	9,173	8,912	101,347*	92,359†	20'18	18'39
North-Western Provinces and Oudh.	112,573	97,972	107,436	98,693	103,869	82,937	77,760	93,831	101,473	112,779	103,713	112,928	1,205,964	1,093,212	25'71	23'31
Punjab . . .	61,134	36,422	30,642	26,103	29,666	28,220	25,502	27,325	32,592	33,842	31,905	30,182	393,535	392,118	19'15	19'08
Central Provinces .	21,043	22,556	20,971	19,712	19,981	15,128	18,180	30,037	31,693	32,992	25,205	23,262	280,760	221,418	29'55	23'30
Berar . . .	6,105	6,483	7,714	7,631	6,367	2,906	3,482	4,677	4,963	4,673	3,559	3,371	61,931	66,203	21'78	23'28
Lower Burma .	4,466	3,860	3,560	3,757	3,620	3,778	4,753	5,059	4,653	4,136	4,614	5,265	51,521	48,049	11'41	10'54
Madras Presidency.	24,067	20,581	22,557	20,242	21,265	19,057	21,566	22,325	22,315	22,365	21,209	23,220	260,769	277,337	7'97	8'26
Bombay Presidency.	41,982	39,041	40,092	34,732	34,039	29,255	34,418	36,793	30,552	29,349	29,664	32,312	412,229	388,848	21'90	20'66
Ajmere-Merwara .	1,180	908	945	785	730	526	565	847	765	723	700	729	9,403	11,263	17'34	20'77
Coorg . . .	263	242	264	204	301	370	370	365	328	250	275	320	3,552	4,064	20'53	23'48
Mysore . . .	2,900	2,956	3,495	3,149	3,251	2,789	3,017	3,004	2,911	3,263	3,721	3,252	37,708	37,168	7'79	7'67
TOTAL .	433,814	397,040	447,061	372,702	358,494	349,997	316,679	363,240	365,918	373,495	388,499	412,005	4,578,944	4,266,293	21'05	19'53

* Includes 15,637 deaths from *Kala Azar*.
† Includes 15,894 deaths from *Kala Azar*.

161. In Bengal there was an increase of 3,337 parcels of quinine sold, equivalent to an increase of 1,701,870 grains.
Sale of Quinine at Post Offices. There was no constant relation between the prevalence of fever and the demand for quinine, and it was supposed that the demand was only there great where the virtues of the drug were known.

Progress in the scheme was made in Assam. From August all post offices in the Brahmaputra and Surma valleys were supplied with packages for sale, even when situated near dispensaries. Formerly quinine was sold only at post offices at a distance from dispensaries. The greatest success was attained in the Khasi and Jaintia Hills, where, owing to a great extent to the interest taken in the matter by the missionaries at work in those hills, the sales were very considerable. The agencies there employed were post offices, missionaries and the police. Arrangements have been made for selling pice packets of quinine through the agency of vaccinators from the beginning of next vaccinating season.

In the North-Western Provinces the scheme was first introduced, and that in the districts of the Meerut division, Pilibhit, and the Tarai parganas, being subsequently extended to Hamirpur and Gorakhpur. Only 260 packets were issued, but the scheme is still in its infancy.

Both the sale of quinine through the agency of lumbardars, postmasters, etc., and its gratuitous distribution through the members of the vaccination staff appear to be on trial in the Punjab, but there is as yet not much information available as to results. The Civil Surgeons of Gurdaspur and Muzaffargarh report that the gratuitous distribution is appreciated by the people. On the other hand, the Deputy Commissioner of Jhelum says that the people as a rule decline to spend their money on quinine; and that he is opposed to gratuitous distribution, on the ground that the quinine does not reach those for whom it is intended.

In Coorg the sale of 5-grain packets was introduced in January at 22 post offices, in places where there were no dispensaries. No information can be given as to results.

In Burma the scheme for the sale of 5-grain pice packets has now been working slightly over one year, and it has not, perhaps, quite achieved the success that was hoped for. The general opinion appears to be that the chief obstacle to the working of the scheme is a want of knowledge on the part of the people of the virtues of quinine, and it is only by time and by perseverance on the part of district officers that this ignorance can be removed. The distribution of vernacular handbills setting forth the advantages of quinine, and stating how and where the drug may be obtained, has been recommended. It is also proposed to provide vendors with packets at a smaller cost than at present, so as to increase their profits, and thereby their desire to sell.

162. The number of deaths attributed to fevers in Bengal in 1896 was 1,760,225, as compared with 1,634,254 in 1895 ; and the death-rate was 24·77 against 22·99 for the preceding year, 22·14 for the five-year period, and 18·83 for the decennium 1886-95. As in previous annual reports, the Sanitary Commissioner points out that the heading "fever" covers a multitude of complaints in the mind of the village watchman, who is primarily responsible for registration, and that it is certain that numerous deaths are put down to fever which are really due to other causes ; and considers this not surprising, because it is far less trouble for the village watchman to say at the weekly muster that so many deaths occurred from fever, about which he knows there will be no special inquiry, than to return a large number of deaths from cholera or small-pox, about which experience has taught him there will be special inquiry and a call for daily returns which cause him extra trouble. Out of the 46 districts of Bengal 29 had higher mortalities than in the previous year, and all but two higher mortalities than in the decennium 1886-95. Though the year was on the whole a dry one yet it is stated that the increase of fever was natural, because the rainfall was intermittent, and the drying and wetting of the soil alternate. The heaviest mortality took place in the months of March, December, and February, in the order given, and the lightest in July, October, and September. The last four months of 1896 had decidedly lower mortalities than the corresponding months of 1895. Ten districts had ratios over 30 per mille, namely, in order, Jalpaiguri, Rangpur, Dinajpur, Darjeeling, Purnea, Rajshahi, Pabna, Muzaffarpur, Darbhanga, and Jessore ; and most of these belong to the notoriously unhealthy *terai*. Fourteen districts had ratios over 25 per mille, eleven over 20, six over 15, four over 10, and one (Puri) over 5. The rural death-rate was 25·05, the highest individual ratios of rural areas being those of Jalpaiguri and Darjeeling. The urban death-rate was, as usual, lower than the rural, being only 19·04 ; and the highest individual town ratios were those of Kumarkhali (46·22), a small town in the Nadia district, and of Roserha (37·01), a somewhat larger town in the Darbhanga district.

To the 211 admissions of the European seamen of the port of Calcutta from fever there was only one death, and that was from enteric fever. There were 31 deaths among the native floating population, giving a ratio of 1·20 per mille against 0·74 in the preceding year.

163. Under the heading "fevers", in which the reporting agents are apt to include all diseases wherein rise of temperature is a prominent symptom, there were 101,347 deaths

Fevers in Assam.

registered in Assam in 1896; and the death-rate, which was 18·39 per mille in 1895, rose in 1896 to 20·18, or 4 per thousand in excess of the mean of the previous five years. Most deaths occurred in June and May, and fewest in April and February. All the eight months from January to August show an increase as compared with the previous year; but, as in the case of Bengal, there was a decided diminution in the last four months. Much the highest district death-rates were those of Nowgong (36·31), where *kala azar* is very prevalent, and of Goalpara (32·98). Besides these, two districts had ratios over 25 per mille, one over 15 per mille, three over 10, and one (the selected areas in the Khasi and Jaintia Hills) over 5. The rural death-rate was 20·31, or excluding the hill district, 25·63; and the rural areas with the highest mortalities were Nowgong and Goalpara. The urban death-rate was 14·41, the towns with the highest ratios being Mangaldai (35·77), North Lakhimpur, Barpeta, and Nowgong (25·13).

164. Regarding the distribution of this fatal form of fever the provincial Sanitary Commissioner writes:—

Kala azar.

During the year 15,637 deaths from *kala azar* and 85,710 deaths from "other fevers" were reported as against 15,894 *kala azar* deaths and 76,465 deaths from "other fevers" reported in 1895. In the province as a whole 9,245 more deaths were registered from other fevers and 257 fewer deaths from *kala azar* than in 1895. As in the previous year, very few *kala azar* deaths were registered in the Surma Valley, in the Sibsagar and Lakhimpur districts, and in the portion of the Khasi and Jaintia hills under registration. In the Goalpara district 298 *kala azar* deaths were reported during the year as against 265 in 1895. In the Kamrup district, though the mortality registered under "other fevers" was more than 50 per cent. greater than that recorded in 1895, the increase in the number of *kala azar* deaths registered was very small, 2,244 deaths from that cause having been registered as against 2,059 in 1895. In the Darrang district as a whole 2,471 *kala azar* deaths were registered as against 2,477 in 1895. In the Nowgong district 10,588 *kala azar* deaths and 1,905 deaths from "other fevers" were registered as against 11,037 and 1,753, the respective numbers registered in 1895. In the district as a whole the registered mortality from *kala azar* was somewhat less, and that from other fevers slightly greater than it was in 1895. As noted in last year's report, the recorded mortality from "other fevers" in this district was so much less than it was before *kala azar* made its appearance, and it was also so much less than the fever mortality recorded in neighbouring districts that, in all probability, many deaths which in former years would have been returned as ordinary fevers were returned in 1896 as *kala azar*.

Deaths from *kala azar* were very equally distributed throughout the year. The months of maximum mortality were May, June and April; and February and January were the months in which fewest deaths were registered. However, in May, the month of maximum *kala azar* mortality, only 10·07 per cent. of the *kala azar* deaths occurred, and 7·33 per cent. of the deaths occurred in February, the month in which fewest *kala azar* deaths were registered. The months of maximum mortality of "other fevers" were June, May, and July; and fewest deaths were registered from the same in April, September, and October. In June, in which the maximum mortality occurred, 12·44 per cent. of the deaths were registered; and 7·17 per cent. of the deaths were registered in each of the months of April, September and October, the months of minimum mortality.

It is worthy of remark that in all the registration circles of the Darrang district except in the Mangaldai town circle, the mortality from "other fevers" was greater than it was in 1895. The statistics for the year seem to show that *kala azar* has gained a firm footing in all the registration circles of the Darrang district. Up to last year the only registration areas of the district in which the disease was prevalent were the Mangaldai town and rural circles.

Kala azar is no new disease. So far back as 1869, the attention of administrative officers had been directed to a peculiar disorder which had decimated and, in some instances, almost totally destroyed, the populations of districts in the low, densely-wooded Garo Hills. The Garos themselves gave definite accounts of the invasion of their villages by the disease, and believed it to be infectious; but European medical officers were of opinion that the disease was an intense form of malarial fever, and that there was no evidence whatever to show that it was infectious.

A pamphlet, published by Dr. Kynsey, of Ceylon, which included, among other papers, a monograph by Dr. Lutz on anchylostomiasis, attracted wide notice in India in 1887. Dr. Kynsey proved that anchylostomiasis was the cause of the anæmia prevalent among coolies in Ceylon, and, as anchylostoma were found in the intestines of individuals who had died of anæmia in Assam, Dr. Eteson, in his Sanitary Report for 1887, wrote that there was little doubt that the anæmia and dropsy so prevalent among immigrants in Assam was identical with the so-called *beri-beri* of Ceylon—adopting a misuse of nomenclature which has been fruitful in confusion. At this stage, Dr. Giles was deputed to Assam to enquire into the nature of *kala azar*. Dr. Giles was of opinion that it was anchylostomiasis, complicated no doubt in many instances with the malarial fever prevalent in Assam, but essentially due to the presence in the intestine of anchylostoma.

Soon after the publication of Dr. Giles' report, Dr. Dobson showed that the anchylostomum was a very common parasite in the intestines of the apparently healthy. It had been known before the date of Dr. Dobson's researches that the anchylostomum might be present without causing any appreciable inconvenience to the host, but the establishment of the frequency of the worm's occurrence in India was mainly due to Dr. Dobson. The result of this discovery was to discredit Dr. Giles' hypothesis, and there can be little doubt that there has been a tendency to underestimate the evil which the presence of anchylostoma in the intestine is capable of inducing. In consequence, the pendulum of professional belief swung back to malaria as the cause of *kala azar*, although some medical men, among them Dr. Campbell, who had great experience of the disease, believed that *kala azar* was a paludal fever complicated in the vast majority of cases by the presence of anchylostoma in the intestine.

Owing to the prevalence and spreading of *kala azar*, Dr. Rogers was deputed in 1896 to make another investigation into its nature, and his report was completed early in 1897.

165. Dr. Rogers gives a useful summary of the growth of opinion regarding

Dr. Rogers' Report.

the etiology of *kala azar*, and details the clinical and pathological facts observed by him. After stating

his own conviction regarding the nature of the disease, he concludes with his recommendations for the prevention of its further spread.

Dr. Rogers describes *kala azar* as having begun in the Garo Hills, and spread thence up the Brahmaputra Valley, along the lines of human communication, desolating villages in its track, but showing a very distinct tendency to disappear after a variable period from the places that have suffered a visitation.

The symptoms are those of an intense malarial cachexia. Individuals of all ages suffer, but children are especially liable; the sexes are attacked equally; no form of occupation ensures immunity, but the very poor are most liable to suffer, and Europeans least so. Dr. Rogers says that seven Europeans have

been attacked, and regarding three cases he gives particulars which are unfortunately too meagre to be of much use. Opium-eating seems to afford an almost complete protection.

The seasonal distribution of *kala azar* is almost the same as that of malarial fevers, but more extended—beginning earlier and ending later. It is prone to attack several members of the same family, and in an affected district cases of *kala azar* are more common than are cases of severe malarial cachexia in a malarious district.

Fever is an invariable accompaniment, but it is of no particular type, its only constant characteristic being a tendency to recur again and again until the sufferer dies. One peculiarity of the fever is that the patient is frequently unaware of its existence, even when the thermometer shows that a high degree of fever is present. The disease shows a varying virulency, it is never, Dr. Rogers says, fatal in less than three months, and never lasts for more than three years. Recovery is uncommon, but is more likely to occur at the end than at the beginning of an outbreak among a community. A characteristic of the disease is a profound disorganization of the digestive functions, and the complete inability to digest vegetable food, which often leads to a craving for an animal diet. The *plasmodium malarie* was frequently found; but Dr. Rogers' details on this head are less complete than might have been expected. He found most of the forms 'figured by Italian authors as typical of quotidian fever,' but never crescents. A constant sign is enlargement of the spleen, frequently to a very great degree. Although the liver does not appear to be quite so constantly enlarged as the spleen, it is generally enlarged in proportion to the latter organ. Pigmentation of the viscera and of the membranes of the brain appears to be invariable.

All this goes to make up a picture of severe malarial cachexia, and the impression that *kala azar* is a form of malarial disease is deepened by an analysis of twelve cases of which Dr. Rogers gives details. Of these cases only four recovered; but, in four, death was due to intercurrent diseases. It will be noticed by supporters of the theory that *kala azar* is the result of a helminthiasis that in nine of the cases, including all those that were fatal, worms were present in the intestinal tract, and that in many cases, the worms were anchylostomes. At the *post mortem* examinations in 25 other cases, anchylostomes were found in 21; few in number, it is true, but their small numbers, as well, perhaps, as their absence in four cases, may be accounted for by the administration of thymol to some of the patients during life.

How then may *kala azar* be diagnosed from ordinary severe malarial cachexia? Dr. Rogers is of opinion that it cannot be diagnosed in the early stages, and that it is only by its peculiar distribution, its tendency to run in families, and the rapid onset of signs of extreme cachexia, that the disease can be distinguished at all. Dr. Rogers, however, repeats the statement that the natives themselves can immediately differentiate the disease from ordinary malarial fever, but, in spite of the importance of this fact, if it is a fact, he does not give any hint as to how the natives arrive at this distinction.

What is *kala azar*? Dr. Rogers notes that like Dr. Giles he did not succeed in cultivating any micro-organism from the blood, and concludes, perhaps too hastily, that the blood does not contain any cultivable microbe. He vigorously combats Dr. Giles' statement that the disease is anchylostomiasis. In that condition a relative increase of white blood-cells is a prominent feature,

whereas in *kala azar*, except when fever is present, the white blood-cells are diminished in proportion to the red cells—the condition of the blood resembling in this respect that described by many authorities as characteristic of malarial cachexia. From the discovery of plasmodia, the constant enlargement of spleen and liver, and the pigmentation of these organs and of the kidneys, Dr. Rogers is convinced that *kala azar* is due to malaria. He believes that it is an intense, contagious form of malarial disease, and that the organisms generally accepted as the cause of malaria have, on account of continuous favouring circumstances, developed not only great disease-causing power, but the quality of infectiveness either directly or indirectly.

From Salisbury's experiment, which, owing to its quotation by Hirsch,* is well known, it would appear possible that the poison of malaria can be carried from place to place in earth, and Schellong† is of opinion that malaria-germs can be carried into a building and multiply on the walls and on the floors and in clothing; while there are instances on record where the circumstances were such as to suggest the possibility of direct infection from man to man‡. In spite of all this, it is the practically universal experience that malarial fevers and cachexia are not infectious, and proofs will have to be indisputable before it can be accepted that *kala azar* is at once due to malaria alone and infectious.

The proof of infectiousness of a chronic disease may obviously be supremely difficult. The facts relied upon by Dr. Rogers are the peculiar distribution of *kala azar* and the histories of its invasion of villages. These narratives are derived from the native headmen, and the validity of the evidence will be contested by opponents of Dr. Rogers' theory on the ground that, according to his own showing, it is not possible to recognize *kala azar* in its early stages.

Dr. Rogers endeavours to fortify his position by adducing the opinion held by Dr. Jackson regarding the infectiousness of Burdwan fever, and the account commonly given in the text-books of the appearance for the first time in 1866 of malarial fevers in the Mauritius and Réunion. But the Burdwan fever was considered by nearly everyone in a position to form a reliable opinion to be malarial and non-contagious§; while the few who thought that it was contagious held, either that it was not primarily malarial at all, or that it was a combination of malarial and typhus fevers||. The story of the infection of the Mauritius appears to be a medical myth.

An examination of contemporary literature¶ shows that although the inhabitants of the Mauritius had enjoyed comparative freedom from malarial fevers, cases did occur. The British troops quartered in the island were seldom attacked,** and malarial fevers were almost entirely confined to natives of India††; still, bilious

* *Geographical and Historical Pathology*, New Sydenham Society's translation, Vol. I, page 297.

† Quoted by Scheube, *Die Krankheiten der warmen Länder*, page 87.

‡ Scheube, *Op. cit.*, page 88, quotes certain cases which, while they suggest origin by infection, "permit of another explanation". It is apparently to one of these cases that Mannaberg alludes "as a curiosity" in *Die Malaria-Parasiten*, page 184.

§ *Indian Annals of Medical Science*, Nos. XXXII, XXXIV and XXXV.

|| Dr. Verchere thought the fever was primarily typhus. Dr. Jackson, that it was malarious in origin, but having acquired contagious properties was "probably typho-malarial". *Bengal Sanitary Reports* for 1872, 1873 and 1874.

¶ *Lancet*, 1867 and 1868—principally the numbers of August 3rd, 1867, page 135, December 7th, 1867, page 709, and February 29th, 1868, page 297. Also Hirsch, *Op. cit.*

** Parkes' *Hygiene*, 1st edition, published 1864.

†† Small and Power in the *Army Medical Department Report*, 1866.

remittent was endemic, and cases of the same nature as the pernicious intermittent which was the typical fever of the great outbreak were not unknown. The epidemic which occurred in the hot season of 1866-67 was malarial and the fever was readily controlled by quinine. The case-mortality was, therefore, not high among the troops; and the principal sufferers were natives of India who lived in deplorable conditions of overcrowding and filth, temporarily aggravated by the privations they had to endure consequent on the high prices attending the commercial crisis of the time. The primary cause of the outbreak seems to have been the extension of cane cultivation, which led to deforestation of the island, and so removed the natural protection against excess of rain and drought. The rains of 1865 were so heavy as to cause inundations which left swamps behind them, and the following season was intensely hot and dry. Precisely similar causes were at work in Réunion (Lacaze). Confusion seems to have arisen from the application of the term "Bombay" fever which, according to Small and Power, was merely a name given to malarial fevers because they chiefly occurred among Bombay coolies. But Dr. Barraut showed that the so-called Bombay fever was produced under the same conditions that breed typhus. It was continuous, lasting from 15—20 days; it was spread by contagion, and just as its prevalence was unaffected by season, so its course was unaffected by quinine. This fever appeared first of all in 1808 among coolies from Bombay, whence it may have been brought by them. It was introduced into Réunion from the Mauritius.

Is *kala azar* due to malaria alone? If it is, what leads to its unusual distribution? Is it a disease added to malaria, as scurvy may be added, which, by weakening the affected individual, renders the process of slow degradation due to malarial poisoning a quick one? Or is it a progressive extension of intense malarial fever due to physical alterations in the soil-and water-levels in Assam? These questions remain unanswered.

166. The number of deaths ascribed to fevers in 1896 was 1,205,964 against 1,093,212 in 1895. The death-rate was 25·71 as opposed to 23·31 in the previous year, and to the mean ratio of 24·19 for the quinquennial period antecedent to the year under review. The heaviest mortalities occurred in December, October and January, and the lightest in July, June and August. The peculiar rise in March (See the table in paragraph 160) followed by a fall in April, is considered by the Sanitary Commissioner to have been probably due partly to climatic causes and partly to slight scarcity antecedent to the *rabi* crops coming on the market. The mortality in each of the nine months, January to September, was higher than in 1895, but that in each of the last three months was lower. The fall in the last months of 1896 as compared with those of 1895 has already been noticed also in the cases of Bengal and Assam. The mortality, which had been high in October 1896, fell in November, and rose again in December. The fall in November has been attributed to the scantiness of the rains and their premature cessation, the rise in December indirectly to scarcity, which would diminish the chances of recovery of persons attacked by fever or pneumonia. Two of the district death-rates were over 45 per mille, those of Pilibhit (48·11) and Naini Tal (45·48), the latter district including the malarious *terai*. Bareilly and Hamirpur had ratios over 40 per mille, while five districts had ratios over 35, five over 30, twelve over 25, fifteen over 20, six over 15, and one (Partabgarh) over 5. "Speaking generally", says the Sanitary Commissioner, "it may be said that the incidence of mortality from

fevers fell much more lightly than usual on areas with a normally excessive degree of humidity of atmosphere and high level of sub-soil water, as was to be expected from the climatic conditions of the year." The rural mortality was 25·52, the rural areas with ratios over 40 being Pilibhit, Naini Tal, Bareilly and Hamirpur. On the other hand, the urban mortality was 28·32, higher than the rural, as it was also in 1893, 1894, and 1895; and the highest town ratios were those of Deoband (50·02), Mau Ranipur and the Hardwar Union. Among the large towns with high rates were Ghazipur, Cawnpore, Fyzabad, Ajhudia, Farukhabad, Fatehgarh, Jhansi, Benares and Lucknow.

167. There was a slight increase in the fever mortality in the Punjab, the number of deaths having risen from 392,118 in 1895 to 393,535, and the ratio per thousand of population from 19·08 to 19·15. The ratio for the preceding quinquennium was 23·89. The months of greatest mortality were January, February and October, and those of lowest mortality July, April and August. Like the provinces already treated of, the Punjab had less mortality in each of the last three months of 1896 than in the corresponding months of 1895, but unlike them it had also in 1896 diminished mortality in April, May, June and July. The recorded very high mortality in January is considered by the Sanitary Commissioner to be due to erroneous classification, cases of pneumonia and other chest complaints being, on account of the presence of high body temperature, returned by the ignorant village reporting agents as "fever"; but he does not say why there were more than the usual number of chest complaints in January 1896. From the report of the Inspector-General of Prisons, however, a hint is obtained of the possibility that the high mortality registered in December 1895 and January 1896 may have been connected with the epidemic presence of influenza. Both officers agree, probably with justice, that the general good health of 1895 and 1896 has been due to the scanty rainfall, and consequent prevailing dryness.

Three districts had ratios over 25 per mille, namely, Kangra (29·16), Umballa (25·74), and Rawalpindi (25·20); ten districts ratios over 20 per mille; eleven over 15; 6 over 10; and one (Montgomery) over 5. The rural death-rate was 19·29, and the rural areas with mortalities between 25 and 30 per mille were Kangra, Umballa and Rawalpindi. The urban death-rate, as usual lower than the rural, was 17·21; the highest individual town ratios, just over 23 per mille being those of Rawalpindi, Delhi and Amritsar, and the lowest, between 9 and 10 per mille, those of Maghiana, Mooltan and Umballa. The contrast between the town of Umballa and the Umballa rural area is very marked.

168. In the Central Provinces the deaths from fevers numbered 280,760, or 59,342 more than in 1895; and the mortality ratio per 1,000 of population was 29·55 against 23·30 for 1895, 21·23 for the quinquennium, and 20·98 for the decennium. The months of greatest mortality were October, September and August, and those of least mortality June, July, April and May. Every month of the year had more deaths than the corresponding month of 1895. The year 1896 was characterised, according to the Sanitary Commissioner, by irregular distribution of an average general rainfall, and by the unusually early cessation of a more than average south-west monsoon; while in his report for 1895 he stated that in that year both the general rainfall and the monsoon

rainfall were below the average. The increase of fever in 1896 may therefore have been due to its being a wetter year than 1895.

Two districts had ratios over 50 per mille, namely, Damoh (58·11), and Saugor (51·04); one (Nimar) over 45; one (Seoni) over 40; four over 35; two over 30; four over 25; three over 20; two over 15; and one (Sambalpur) over 10. The rural mortality was 30·19, the rural areas with ratios over 50 being Damoh and Saugor, and those with ratios over 40 Nimar and Seoni. The as usual lower urban death-rate was 22·65; the towns with ratios above 50 per mille were Rehli and Deori, and those with ratios above 40 Garhakota, Charwa and Burha.

169. The number of deaths from fevers in Berar was again reduced, though still high, 61,931 being registered against 66,203 in the previous year. The ratio per 1,000 of population was 21·78 against 23·28 in 1895, and against 14·8 for the quinquennium. It has been looked upon as usual for the greatest fever mortality to occur between the beginning of August and the end of October; but in 1896 the first five months of the year gave by far the greatest number of deaths. Each of the same five months had more deaths, while each of the remaining months of 1896 had fewer deaths than the corresponding months of 1895.

This unusual fever mortality during the first five months of the year is believed by the Sanitary Commissioner to be attributable to epidemic influenza. The number of deaths due to malaria in 1896 may therefore very likely have been reduced, and this is all the more probable in view of the fact that the rainfall of the year was short, especially in the third quarter. Two deaths from bubonic plague are included in the figures for October. The highest district ratio was that of Wun (33·8), two districts had ratios over 20 per mille, and three over 15. The rural mortality was 21·8, Wun being the only rural area with a ratio over 30. The lower urban death-rate was 21·0, and the towns with ratios over 30 were Yeotmal, Digras, Sirasgaon, Wadegaon and Pusad.

170. The number of deaths recorded in Madras as due to fevers was 260,769, or 16,568 less than in the previous year; while the ratio per mille of population was 7·97 against 8·26 in 1895, and against 7·9 for the quinquennium. The Sanitary Commissioner attributes the decrease to deficient monsoon in the Ceded Districts, where malarial fevers are largely prevalent. In the table given in paragraph 160 it may be seen that the Madras ratio was much lower than that of any other of the British provincial registration areas, and such is usually the case. Deaths were greatest in number in January, December and March, and least in number in June, April and February. Each of the first four months of 1896 had more deaths, and each of the last eight months of 1896 fewer deaths, than the corresponding month of 1895; and in this feature Madras is nearly the same as Berar. Three districts had ratios over 15 per mille, namely, the Nilgiris (19·5), Kurnool (15·4) and Vizagapatam (15·3); three districts ratios over 10, twelve over 5, and four over 2. The rural mortality was 8·0, the Nilgiri rural area having a ratio over 20, and the rural areas of Vizagapatam and Kurnool ratios over 15. The relation between urban and rural fever mortality seems to be abnormal in Madras, as in 1893 and 1894 the former was greater than the latter, and in 1895 and 1896 the two were identical. The towns with ratios of 15 per mille or over were Kampali, Karur, and Palkanda. "In the town of Madras", says the Sanitary

Commissioner, "nearer approach to the normal sub-soil water level than has existed since the exacerbation of malarial fever prevalence attracted attention, namely, in 1890, has, in my opinion, resulted in a decline of the fever rate. On this matter a special report has, at its request, been submitted to Government." The ratio for Madras was 13·6 against the 14·2 of the previous year. "The town of Karur exhibited a heavy increase of mortality from fever during the year, namely, 16·5 against 10·6 of 1895. In this case the sub-soil of the town is saturated with soakage from cesspools, and, as typhoid is a recognised disease in this town, it need not be assumed that solely malarial fever was dealt with."

171. In Coorg there were 3,552 deaths ascribed to fevers, a diminution of 512; and the ratio per mille of population was 20·53 against the 23·48 of 1895 and the 19·66 of the quinquennium. The fever mortality ratio was nearly 78 per cent. of the death-rate from all causes. The rural mortality was 21·14, and the urban 14·31. Among rural areas Mercara had the highest ratio, and among towns Fraserpet. June, July, and August were the months that had most deaths, and April, February, and October those that had fewest. Every month of 1896, except January, March, and December, saw fewer deaths than the corresponding month of 1895.

172. The total of deaths from fevers registered in Bombay was 412,229, or 23,381 more than in 1895; and in the twelve-year period 1885-96, this number has only twice been exceeded, namely, in 1892 and in 1894. The ratio per 1,000 of population was 21·90 against the 20·66 of 1895 and the 21·10 of the quinquennium. Beginning with September the figures include 2,086 deaths from plague. The heaviest mortality characterised the months of January, March, and February, and the lightest the months of June, October, and November. Each of the first seven months of 1896 had more deaths, and each of the last five months fewer deaths, than the corresponding month of 1895;* the difference between the two years being least in the months of June, July, and August, and greatest in January, February, and March. The diminution of fever mortality in the latter part of the year may possibly be due to the following of a year of deficient rainfall after another of the same; but, even if the rise in the beginning of the year was due to the inclusion among fevers of chest complaints and other affections, there is no information as to why those diseases should have been more prevalent. In the case of the Punjab and Berar the cause was shown to have been influenza, but there is no mention of this disease in the Bombay Sanitary Report. Among the troops and prisoners of the Bombay administration cases of influenza were recorded, mostly in January. With regard to the Gujarat Registration District, which, like the Western and the Sind Registration Districts, had higher mortality than in 1895, and which showed much increase in the first months of the year, little increase in the last three, "the recognised months of malaria," the Deputy Sanitary Commissioner offers the following explanation:—

During the first nine months of the year small-pox and cholera were prevalent in an epidemic form throughout the district, and it is possible that many deaths due to one or other of those diseases were entered as deaths from fever. Moreover, there are many villages in which every death is returned as due to fever, and consequently in such

* Each of the first nine months of 1896 had more deaths, and each of the last three months fewer than the corresponding monthly mean of the decennium 1886-95.

villages a large proportion of deaths must be wrongly entered. It is worthy of note that during the last three months of the year, when malarial fever is most prevalent, the returns for the two years, 1895 and 1896, correspond fairly accurately, while the large divergence occurs in the latter part of the cold weather, when deaths from chest affections are most liable to occur, and in the hot weather and first months of the monsoon, when epidemic diseases are most prevalent.

The districts with the highest ratios, over 30 per mille, were Broach (33·23), Nasik (30·33), and Kaira (30·20); and five districts had ratios over 25, nine over 20, four over 15, and three over 10. The rural mortality was 22·50, and the rural areas with ratios over 30 per mille were Broach, Nasik, Kaira. The urban mortality, 17·59, was, as usual, lower than the rural, the towns with ratios over 30 being Barsi, Nasik, Nadiad, Dohad, Umarkot, and Shikarpur.

173. The number of deaths registered in Lower Burma under the heading of fevers in 1896 was 51,521 as compared with 48,049 in the previous year; and the death-rate was 11·41 against the 10·64 of 1895 and the 10·02 of the quinquennium. The months of greatest mortality were December, August, and July, and those of least mortality March, May, and April; and in each month of 1896 there were more deaths than in the corresponding month of 1895. The mortality of 1896 from fevers is the highest recorded in the 25 years, 1872-96. No explanation of the increase is forthcoming. The highest district death-rate was that of Akyab (20·51), and the lowest that of Hanthawaddy (5·01). One district had a ratio over 20 per mille, two districts ratios over 15, six over 10, and nine over 5. The rural mortality was 11·87, and the urban 8·39. No rural area had a higher ratio than 21·55, and none a lower than 5·01, the areas with the highest ratios being Akyab, Tharrawaddy, Sandoway, and Prome, those with the lowest Hanthawaddy and Amherst. The maximum for towns was 21·96, and the minimum 1·47. Among the towns with high ratios were Kawkareik, Pegu, Pantanaw, Sandoway, and Ramree, and among those with low ratios Danubyu, Yandoon, Zalun, Ngathainggyaung, Thayetmyo, and Shwedaung.

Dysentery and Diarrhœa.

174. The number of deaths attributed to dysentery and diarrhœa throughout the registration areas of India during 1896 was 240,189, a reduction of 2,343; and the ratio per 1,000 of population was 1·10 against 1·11 in the previous year, the number under registration having somewhat diminished in 1896. The months of greatest mortality were August, September, and July, and those of least mortality February, March, and January. Each of the six months February—July, had more deaths, and each of the others fewer deaths, than the corresponding month of 1895.

The highest provincial death-rate was that of Berar, where also the highest district death-rate was recorded; and the lowest that of Bengal. Leaving out Coorg, the lowest maximum district death-rate occurred in the Punjab. The Central Provinces showed the greatest increase of ratio, and Berar the greatest decrease. Assam, the Central Provinces, Madras, and Bombay registered increased mortality, the difference in the case of Madras being very small; while the other eight provincial areas rejoiced in lowered ratios. The only province in which the rural mortality exceeded the urban was Berar; but no explanation of this exceptional relation is offered.

The following statement illustrates not only what has just been written, but also the succeeding paragraphs upon bowel complaints in the different provinces :—

Statement showing the deaths from DYSENTERY AND DIARRHŒA registered in the different Provinces by Months during the year 1896.

PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.	
													1896.	1895.	1896.	1895.
Bengal . . .	4,292	3,649	4,518	4,041	4,198	4,608	4,191	4,601	3,865	3,226	3,217	3,529	47,935	49,871	·67	·70
Assam . . .	1,352	1,020	1,062	1,061	1,433	1,571	1,321	1,285	1,305	1,574	1,602	1,418	16,004	15,523	3·19	3·09
North-Western Provinces and Oudh	2,627	2,049	2,230	2,669	3,301	3,166	3,544	4,591	4,729	4,331	3,583	4,038	40,858	42,778	·87	·91
Punjab . . .	908	575	690	959	1,100	885	1,045	1,529	1,886	1,692	1,446	1,171	13,886	15,648	0·68	0·76
Central Provinces .	1,312	1,356	1,317	1,934	2,080	1,957	2,866	4,539	4,181	3,288	2,582	2,470	29,882	20,316	3·15	2·14
Berar . . .	1,212	1,033	1,593	2,114	1,473	847	1,600	2,553	2,045	1,498	950	804	17,722	24,452	6·23	8·60
Lower Burma .	490	356	337	314	663	995	1,096	1,057	792	662	572	443	7,777	8,794	1·72	1·95
Madras Presidency	1,752	1,444	1,410	1,341	1,620	1,661	2,267	2,614	2,755	2,330	2,428	3,180	24,802	23,937	0·76	0·71
Bombay „ .	2,325	2,050	2,033	2,277	2,913	3,138	4,631	5,440	3,471	2,804	2,421	2,543	36,046	35,348	1·92	1·88
Ajmere-Merwara .	16	31	27	43	19	21	29	67	37	28	35	26	379	512	·70	·94
Coorg . . .	20	8	10	24	42	42	46	50	32	19	15	15	323	367	1·87	2·12
Mysore . . .	360	339	381	303	354	357	454	442	432	368	401	384	4,575	4,986	·94	1·03
TOTAL .	16,666	13,910	15,608	17,080	19,196	19,248	23,090	28,768	25,530	21,820	19,252	20,021	240,189	252,532	1·10	1·11

175. The number of deaths registered in Bengal in 1896 was 47,935, or 1,936 less than in the preceding year; and the ratio per 1,000 of population was 0·67 against the 0·70 of 1895 and the 0·69 of the quinquennium. The months of greatest mortality were June, August, and March, and those of least mortality November, October, and December. Each of the seven months, February to August 1896, had more deaths, while January and each of the last four months of 1896 had fewer than the corresponding month of 1895. The maximum district ratio was 6·69 in Darjeeling, and the minimum 0·02 in Rajshahi. One district had a ratio over 5 per mille, two ratios over 4, one a ratio over 3, two ratios over 2, six over 1, six over 0·5, twenty-five over 0·05, and three under 0·05. The districts of Darjeeling, Howrah, Calcutta, Balasore, Puri, Hooghly, and Cuttack, though they do not stand every year exactly in the order now given, always have the highest Mortality ratios. The Sanitary Commissioner, however, says :—

The figures cannot be trusted.. It is a matter of common knowledge that dysentery and diarrhœa are prevalent diseases all over Bengal,—diseases to which many persons succumb, yet the rates of mortality returned would lead one to suppose that, except in the half-dozen districts mentioned, dysentery and diarrhœa prevail to a slight extent only. There is reason to believe that a large number of deaths from this cause are returned as fever by ignorant *chaukidars*, who are the recorders of vital statistics. In the districts at the top of the list I believe it has become the custom to return a comparatively high death-rate from this cause, which is the only explanation I can give; for there is no reason why dysentery and diarrhœa should be more prevalent in Howrah, Calcutta, Balasore, Puri, Hooghly and Cuttack than in other parts of the province.

The urban mortality (3·22) was, as in past years, enormously greater than the rural (0·54). The rural areas with the highest ratios were Darjeeling and Howrah, and the towns Bhadreswar (12·76), Serampore, Chaibassa, Howrah, Midnapore, Kurseong, and Hooghly with Chinsurah. The first, second, and last of these towns had also very high ratios in the preceding year.

In the port of Calcutta there were 61 admissions but no deaths among European seamen; while in the native floating population there were 9 deaths, all out of hospital, or 0·35 per 1,000 of strength.

176. There were 16,004 deaths registered as due to these causes in Assam in 1896, an increase of 481; and the death-rate was 3·19 per thousand against 3·09, the death-rate of the previous year, and against 2·94, the quinquennial mean death-rate. The months of greatest mortality were November, October, and June, and those of least mortality February, April, and March. April, September, November and December had fewer deaths than the corresponding months of 1895; the other months, more deaths. In accordance with past experience, the district with the highest death-rate was Lakhimpur (7·16), and that with the lowest Goalpara (0·63). One district had a ratio over 7 per mille, two ratios over 4, three ratios over 3, one a ratio over 2, one a ratio over 1, and one a ratio over 0·5. The rural mortality was 3·12 and the urban 6·25. Lakhimpur and Cachar were the rural areas with the highest ratios, and Mangaldai and Golaghat the towns.

177. The total number of deaths ascribed to these causes in 1896 was 40,858, a reduction of 1,920; and the death-rate was 0·87 against the 0·91 of 1895 and the 1·00 of the quinquennium. The months of greatest mortality were September, August, and October, and those of least mortality February, March, and January. The six months, January-June, had fewer deaths, the four months, July-October more deaths, November fewer deaths, and December more deaths than the corresponding months of 1895. The provincial Sanitary Commissioner considers the rise in December to have been due partly to climatic causes and partly to scarcity. The hill tracts, as usual, showed high rates. The highest district ratio (8·90) was that of Garhwal, and the lowest (0·05) that of Ballia and of Jaunpur. One district had a ratio over 8 per mille, two over 5, one over 4, three over 2, nine over 1, five over 0·5, and twenty-seven of 0·05 or over. The rural mortality was 0·76, the urban 2·40; the rural areas with the highest ratios being Garhwal and Jhansi, the towns Hardoi (40·89), Kashipur (16·37), Lalitpur and Rath. At Hardoi a heavy mortality occurred among the famine-stricken inhabitant of the poor-house; while Kashipur, a town in the Naini Tal district, is said to be noted for the frequent occurrence of dysentery and diarrhoea.

178. There were 13,886 deaths attributed to these causes in the Punjab, a reduction of 1,762; and the ratio per thousand of the population was 0·68 against 0·76 in the previous year, and 0·81, the quinquennial mean. The heaviest mortalities occurred in the months of September, October, and August, and the lightest in February, March, and June. February, March, August, and September, had more deaths, all the other months fewer deaths, than the corresponding months of 1895. "The year taken as a whole", says the provincial Sanitary Commissioner, "has shown a death-rate considerably below the mean for the ten preceding years, a fact which I am inclined to ascribe to the dry season we experienced in 1896, especially as the worst months in 1895 also show a mortality considerably below the mean, that year being also an unusually dry one." The highest district ratio was that of Simla (3·26), and the lowest that of Hazara (0·11). One district had a ratio over 3, five a ratio of 1 or over 1, thirteen ratios over 0·5, and twelve ratios over 0·05. It is said to be usual for the death-rates of the districts of

Simla, Gurgaon, Kangra, Delhi, Gurdaspur, Umballa, Karnal, and Hissar to be comparatively high. The rural mortality was 0·58, the urban 2·00; the rural area with the highest ratio being Simla, and the towns with the highest ratios Pind Dadan Khan, Bhiwani, Kaithal, and Rewari.

179. The number of deaths registered under this heading was 29,882, an increase of 9,566; and the death-rate per 1,000 of population was 3·15 against the 2·14 of 1895 and the 1·84 of the quinquennium. The months of greatest mortality were August, September, and October, and those of least mortality January, March, and February. Each month of the year 1896 saw the occurrence of more deaths than the corresponding month of 1895. The monsoon rainfall was irregularly distributed, and ceased very early; the crops were below the average; there was widespread distress and scarcity; and the increase of bowel complaints was due to insufficiency of the usual food, and to the consequent ingestion of unsuitable food-stuffs. The highest district ratios were those of Jubbulpore (9·79), Damoh, Murwara, and Mandla (7·68), and the lowest district ratio that of Bhandara (0·25). Three districts had ratios over 9 per mille, one over 7, two over 4, three over 3, two over 2, eight over 1, and one over 0·05. The rural death-rate was 2·75 against 2·04 in the previous year; the rural areas with the highest ratios being Jubbulpore, Mandla, Damoh, and Murwara. The urban mortality was 7·44 against 3·19 in 1895; and with regard to individual towns, Damoh had a ratio over 70 per mille, Murwara over 60, Khurai over 40, Sehora over 30, Narsinghpur, Lakhnadan, Hatta, and Jubbulpore over 20; Gadarwara, Burha, Mandla, and Mungeli over 10.

180. The total number of deaths registered as due to these causes in Berar in 1896 was 17,722, a reduction of 6,730; and the death-rate was 6·23 per mille, as compared with 8·60 in the previous year, and with 6·1, the mean death-rate of the previous five years. The heaviest mortalities occurred in the months of August, April, and September, and the lightest in the months of December, June, and November. Each of the first four months of 1896 had more, and each of the other months fewer, deaths than the corresponding month of 1895. The highest district death-rate was that of Ellichpur (10·3), and the lowest that of Wun (2·7); and this relation is a usual one. The other districts had ratios of 8, of over 6, and of over 5. The rural mortality was 6·5, and the urban 4·5; and in at least the three preceding years also the rural ratio was higher than the urban. No explanation is given as to why Berar differs in this point from other provinces. Among rural areas Ellichpur had the highest ratio, and among towns the highest ratios were those of Nandura, Karajgaon, Bulgaon, and Ner Pinglai.

181. The total number of deaths registered under this heading in Madras in 1896 was 24,802, an increase of 865; and the death-rate was 0·76, or 0·05 more than in 1895, and 0·04 less than the mean of the five years preceding. The months of greatest mortality were December, September, and August, and those of least mortality April, March, and February. The first six months of the year and August had each fewer deaths, the other months each more deaths, than the corresponding month of 1895. The increase in the second half of the year, and especially in December, is probably connected with the prevalence of cholera. The highest district ratio was that of Madras (5·3), and the lowest that of Kurnool (0·2). One district had a ratio over 5, one over 2, three over 1, eleven of or over 0·5,

and six over 0·05. The rural mortality was 0·5, and the urban 3·2. With regard to Chingleput, which had the highest ratio among rural areas, the Sanitary Commissioner says :—

This district is notorious for bowel affections. The increase may be due to a better rainfall in certain parts of the district than it has had for some years past bringing about access of water to tanks from more than usually distant parts, and with it filth that would have been out of range of influence in ordinary years, or to fluctuation of the sub-soil water beyond normal limits. It is probable that much of the so-called dysentery and diarrhœa of South Canara and Malabar is due to catarrhal inflammation of the intestines following exposure to wet, which must form a prominent feature of the every-day life of the labourer in these districts.

Over 7 per mille was the ratio of the town of Coonoor, and over 6 per mille the ratios of Tanjore, Vizagapatam, Calicut, and Tuticorin.

182. During 1896 the number of deaths under this heading in Coorg fell only from 367 to 323, thus remaining much higher than in 1894 and 1893. The ratio of 1896 was 1·87, that of 1895 2·12, and that of the quinquennium 1·38. In August and July the deaths were most, and in February and March least, numerous. January, April, and August were the only months of 1896 that had more deaths than the corresponding months of 1895, and in April the difference was very slight. The rural mortality was 1·42, and the urban 63·8. Among rural areas Kiggatnad had the highest ratio (2·33), and among towns Virajendrapet (17·32).

183. During 1896 the number of deaths from these causes in Bombay was 36,046, an increase of 698; and the ratio per 1,000 of population was 1·92 against the 1·88 of 1895 and the 1·87 of the quinquennium. The months of greatest mortality were August and July, and the months of least mortality March and February. Each of the first eight months of 1896 had more, and each of the last four months fewer, deaths than the corresponding month of 1895. The central registration district only had a decrease of ratio, the other four showing an increase. The highest district death-rate was that of Nasik (4·73), and the lowest that of Upper Sind Frontier (0·05). One district had a ratio over four per mille, three districts ratios over 3, six over 2, four over 1, and ten of or over 0·05. The rural mortality was 1·86, the rural areas with the highest ratios being Nasik and Belgaum, and those with the lowest Panch Mahals and Hyderabad. Greater was the urban death-rate, namely, 2·33; and the towns with the highest ratios were Nandurbar, Nasik, Chopda, and Ahmednagar.

184. In Lower Burma the number of deaths registered from dysentery and diarrhœa was 7,777, or 1,017 less than the number of the previous year, which was, chiefly on account of improved registration, the highest number ever recorded. The ratio per thousand of population was 1·72 for 1896, 1·95 for 1895, and 1·43 for the quinquennium. Deaths were most numerous in July, August and June, and least so in April, March and February. May, September, October, and November, had each more deaths, and the other months each fewer deaths, than the corresponding month of 1895; but the difference in May and June was very small. The highest district ratio was that of Tavoy (4·84), and the lowest that of Prome and of Henzada (0·63). One district had a ratio over 4 per mille, three districts ratios over 3, two over 2, nine over 1, and three over 0·5. The rural mortality was 1·62, and the urban 2·38. The rural areas with the highest death-rates were Tavoy, Bassein, and Myaungmya. Some of the towns had

high ratios, such as Thaton, Maubin, Ramree, Bassein, and Myanaung; others, such as Kyangin, Zalun, Thayetmyo, etc., had very low mortalities; while two recorded no deaths at all. With regard to these differences the Sanitary Commissioner remarks:—

Some of these towns get their water-supply from rivers; some partly from rivers, partly from wells; and some have to rely on wells entirely. No relation between these various sources of supply and the incidence of bowel complaints is discernible, nor can any be traced in the sanitary defects or meteorology.

Injuries.

185. The deaths recorded under “Injuries” during 1896 are shown in the two subjoined statements. The first shows the

Injuries.

distribution of deaths caused in the different provincial registration areas month by month, and the second the details of deaths which resulted from the different sub-heads included under the general term “injuries”.

In all there were 92,531 deaths, or 2,029 less than in the preceding year; but as the population under registration also fell, the ratio remained unchanged. The whole reduction took place in five provinces, there having been more or less increase in seven. The ratio of mortality ranged from 0·67 in the Central Provinces to 0·23 in Lower Burma. As in the previous year, the months that saw most deaths from injury were July and August.

The number of suicides increased, but there were fewer deaths from wounding, accident, and the attacks of snakes and wild beasts. The greatest increase of suicide was in the North-Western Provinces and Oudh and in the Central Provinces, and the greatest decrease in Madras; the greatest increase of wounds and accidents in the Central Provinces, and the greatest decrease in the North-Western Provinces and Oudh; the greatest increase of persons killed by snakes and wild beasts in Madras, and the greatest decrease in the North-Western Provinces and Oudh.

Statement showing the deaths from INJURIES registered in the different Provinces by Months during the year 1896.

PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.	
													1896.	1895.	1896.	1895.
Bengal . . .	1,019	951	1,501	1,832	2,514	3,338	4,416	4,125	3,691	2,358	1,415	1,262	28,422	29,178	·40	·41
Assam . . .	91	88	111	121	157	166	221	168	121	152	112	84	1,592	1,885	·32	0·38
North-Western Provinces and Oudh . . .	1,358	1,217	1,625	1,828	2,329	3,413	4,114	3,749	3,490	2,292	1,585	1,453	28,453	30,901	·61	·66
Punjab . . .	342	330	414	481	613	853	1,077	1,033	724	458	332	436	7,093	6,754	0·35	0·33
Central Provinces	397	383	409	392	503	630	638	751	728	625	466	469	6,391	5,827	0·67	0·61
Berar . . .	57	55	59	79	77	98	76	79	99	101	83	60	923	1,130	0·32	·40
Lower Burma .	90	59	74	80	115	86	82	76	92	71	74	129	1,028	929	·23	·21
Madras Presidency	752	806	939	1,036	1,134	919	854	876	877	988	831	810	10,822	10,357	0·33	0·31
Bombay . . .	357	396	425	421	553	723	638	629	589	601	485	421	6,238	6,051	0·33	0·32
Ajmere-Merwara .	30	10	25	24	22	32	36	21	25	22	20	13	280	413	·52	·76
Coorg . . .	6	7	6	3	1	3	4	6	7	4	5	4	56	52	0·32	0·30
Mysore . . .	87	101	90	163	148	104	94	63	118	146	187	92	1,233	1,083	·25	·22
TOTAL . . .	4,586	4,403	5,678	6,400	8,166	10,365	12,250	11,576	10,561	7,818	5,495	5,233	92,531	94,560	·43	·43

Statement showing details of deaths from INJURIES registered in the different Provinces during the year 1896.

PROVINCE.	Population under registration.	DETAILS OF DEATHS FROM INJURIES.				TOTAL.
		Suicide.	Wounding.	Accident.	Snake-bite or killed by wild beasts.	
Bengal	71,070,233	3,456	1,628	12,729	10,609	28,422
Assam	5,021,084	107	133	1,097	255	1,592
N. W. Provinces and Oudh	46,904,791	3,480	1,760	16,253	6,960	28,453
Punjab	20,553,982	376	680	4,725	1,312	7,093
Central Provinces	9,501,401	1,161	825	3,022	1,383	6,391
Berar	2,843,222	163	56	536	168	923
Lower Burma	4,514,773	70	188	265	505	1,028
Madras Presidency	32,721,267	1,867	6,612		2,343	10,822
Bombay	18,820,346	684	633	3,538	1,383	6,238
Ajmere-Merwara	542,358	9	13	203	55	280
Coorg	173,055	7	7	39	3	56
Mysore	4,843,523	104	927		202	1,233
TOTAL	217,510,035	11,484	55,869		25,178	92,531

All Other Causes.

186. The number of deaths recorded under "All Other Causes" was 1,358,260 against 1,282,141; and all the provincial registration areas, except Berar, Coorg, and Mysore, shared in the increase. As in the preceding year, the greatest monthly record under this heading was in December.

Statement showing the deaths from ALL OTHER CAUSES registered in the different Provinces by Months during the year 1896.

PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.	
													1896.	1895.	1896.	1895.
Bengal	31,869	29,329	35,565	26,526	22,861	29,984	25,056	30,150	29,489	26,859	30,742	33,605	352,036	328,048	4'95	4'61
Assam	4,255	3,751	3,392	2,688	2,827	2,878	2,826	3,156	3,225	3,797	4,060	4,130	40,988	36,726	8'16	7'31
North-Western Provinces and Oudh	13,412	11,212	12,027	13,024	14,477	13,362	15,055	17,507	16,788	15,401	14,470	18,466	175,701	146,022	3'75	3'11
Punjab	12,634	16,588	14,722	12,557	13,464	13,252	13,585	14,826	14,822	15,197	15,615	16,043	183,355	178,569	8'92	8'69
Central Provinces	7,676	7,194	6,996	6,551	7,188	5,805	6,576	9,438	8,631	8,715	7,338	8,596	90,704	79,426	9'55	8'36
Berar	3,077	2,679	2,695	3,257	3,056	1,526	2,193	2,851	2,876	2,496	2,115	2,216	31,137	37,677	10'95	13'25
Lower Burma	3,105	2,704	2,659	2,963	2,949	3,225	4,527	4,172	4,228	3,597	3,951	3,653	41,733	36,698	9'24	8'13
Madras Presidency	50,203	24,298	23,232	21,826	24,955	23,688	27,454	28,574	27,316	28,570	29,208	32,813	322,137	320,805	9'84	9'56
Bombay	8,491	7,770	8,237	7,842	8,186	7,774	9,193	9,487	7,564	7,547	7,725	10,296	100,112	97,104	5'32	5'16
Ajmere-Merwara	153	149	122	127	137	76	96	139	88	90	116	133	1,426	1,383	2'63	2'55
Coorg	46	40	63	39	60	51	63	44	43	33	39	53	579	583	3'35	3'37
Mysore	1,621	1,333	1,435	1,280	1,461	1,409	1,567	1,700	1,589	1,523	1,593	1,691	18,352	19,100	3'79	3'94
TOTAL	126,592	107,097	111,146	98,680	101,621	103,630	108,191	122,041	116,667	113,925	116,972	131,695	1,358,260	1,282,141	6'24	5'87

187. The statistics of charitable medical relief afforded in the different provinces of India during 1896, and of the expenditure incurred in maintaining the dispensaries in each province during the year, are summarised in the statement given as Appendix C to this section.

Amount and cost of charitable medical relief throughout India in 1896.

Appendix A to Section VI.

STATEMENT NO. I.—*Showing the deaths from CHOLERA registered in the Districts of BENGAL PROPER during each month of 1896.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Calcutta	681,560	199	263	772	1,214	538	197	47	13	13	34	42	117	3,449
24-Pergunnahs	1,892,033	1,431	1,878	3,150	2,500	1,395	294	97	43	16	17	21	201	11,043
Howrah	763,625	490	807	1,226	1,006	930	841	112	32	6	22	25	146	5,143
Hooghly	1,034,296	189	268	1,350	1,327	651	326	138	43	28	13	6	37	4,376
Nuddea	1,644,108	887	1,099	3,603	3,670	1,343	106	3	1	...	...	3	11	10,726
Khulna	1,177,652	538	343	2,547	1,964	668	191	41	19	2	6	45	382	6,746
Jessore	1,888,827	1,367	857	2,771	2,583	503	53	12	10	...	3	5	30	8,199
Burdwan	1,391,880	758	743	1,692	1,404	921	310	105	43	11	21	11	45	6,064
Bankura	1,069,668	56	356	806	658	391	158	102	72	16	22	3	27	2,667
Beerbhoom	797,833	176	170	311	293	227	49	99	68	8	3	2	10	1,416
Midnapore	2,631,516	551	827	1,355	2,226	1,247	579	326	180	48	342	107	351	8,149
Dacca	2,395,602	587	311	1,639	1,903	601	110	32	19	82	420	1,014	1,073	7,791
Furreedpore	1,823,543	201	231	1,508	2,069	280	60	26	43	27	40	117	316	4,918
Backergunge	2,153,965	911	907	3,644	1,631	1,384	344	97	31	6	11	184	1,102	10,252
Mymensingh	3,472,186	1,480	459	839	1,338	813	144	66	31	8	25	356	736	6,295
Darjeeling	223,314	...	...	8	1	3	56	88	13	...	2	...	...	171
Jalpaiguri	681,352	1	7	136	426	565	332	45	17	20	...	1	...	1,550
Moorshedabad	1,250,946	321	199	668	1,996	1,397	258	63	22	25	1	2	7	4,950
Dinagepore	1,555,835	67	1	47	48	46	56	24	7	1	1	...	12	310
Maldah	814,919	115	11	80	144	149	172	25	23	23	10	6	33	791
Rajshahye	1,313,336	136	132	1,027	2,297	645	233	84	11	18	14	95	211	4,909
Rangpore	2,065,464	28	2	270	683	194	30	90	4	17	8	5	16	1,347
Bogra	817,494	34	8	19	76	62	61	205	129	86	66	11	22	779
Pubna	1,361,223	25	3	254	913	398	2	...	...	...	17	60	101	1,773
Purneah	1,944,658	26	...	59	407	364	94	9	34	...	...	...	...	993
Chittagong	1,290,167	206	160	197	342	381	45	16	9	8	25	73	63	1,525
Noakhally	1,009,693	157	122	283	193	51	11	2	2	27	453	424	535	2,260
Tipperah	1,782,935	786	413	846	731	220	15	...	3	83	289	748	995	5,129
Balasore	994,625	195	615	1,223	1,795	1,652	1,303	295	142	47	7	72	333	7,679
Cuttack	1,937,671	219	370	820	1,014	917	697	226	586	272	107	45	22	2,558
Pooree	944,998	53	507	732	229	97	52	336	860	302	70	17	50	3,305
Rajmehal	1,754,196	11	19	158	230	483	605	297	154	32	14	11	5	2,019
Deoghur														
Palamau	596,770	...	...	...	...	1	...	...	8	12	4	...	...	25
Manbhoom	1,193,328	22	75	355	480	966	958	630	218	50	5	27	35	3,821
Hazaribagh	1,164,321	...	...	19	...	23	223	392	216	87	17	4	7	988
Ranchi	1,128,885	3	...	...	3	...	...	...	152	16	...	...	5	179
Chybassa	545,488	1	...	46	47	89	16	4	10	8	9	21	5	256
Monghyr	2,036,021	6	6	53	231	834	2,049	488	198	89	35	22	1	4,012
Bhagalpur	2,032,696	10	4	171	963	1,724	2,504	413	319	110	26	15	2	6,261
Gya	2,138,331	3	16	59	18	294	1,117	1,399	1,495	250	41	3	1	4,696
Patna	1,769,004	5	11	162	877	1,206	2,591	1,684	690	73	16	6	1	7,322
Shahabad	2,063,927	...	1	40	252	454	772	613	629	83	6	9	...	2,859
Sarun	2,466,065	1	...	3	135	583	1,396	896	1,569	1,037	44	...	...	5,664
Tirhoot	2,712,857	2	...	34	1,105	6,846	9,814	2,258	2,137	1,327	277	46	...	23,846
Chumparun	1,859,465	...	...	...	68	286	786	805	2,687	2,488	225	31	...	7,376
Durbhunga	2,801,955	5	16	160	1,351	5,496	8,583	1,301	513	34	14	12	6	17,491
TOTAL	71,070,233	12,259	12,217	35,142	42,846	38,318	38,099	14,001	13,505	6,896	2,782	3,707	7,052	226,824

STATEMENT NO. II.—*Showing the deaths from CHOLERA registered in the Districts of ASSAM during each month of 1896.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Lakhimpur	254,053	34	166	53	107	242	114	54	42	28	40	18	34	932
Sibsagar	457,274	103	221	406	238	126	182	30	32	19	16	54	242	1,669
Nowgong	344,141	7	32	9	32	36	67	4	1	1	49	725	489	1,452
Darrang	307,761	6	84	135	242	179	160	25	10	31	26	48	86	1,032
Goalpara	452,304	276	52	32	245	252	482	80	51	10	7	17	52	1,556
Kamrup	634,249	49	40	70	200	231	180	47	7	7	11	27	76	945
Cachar	367,542	99	58	64	73	86	45	42	106	51	82	199	182	1,087
Sylhet	2,154,573	1,143	514	872	500	356	225	68	69	355	805	1,949	1,468	8,324
Khasi and Jaintia Hills	49,167	2	4	1	15	...	...	...	...	4	...	7	12	45
TOTAL	5,021,084	1,719	1,171	1,642	1,652	1,508	1,455	350	318	506	1,036	3,044	2,641	17,042

Appendix A to Section VI—continued.

STATEMENT NO. III.—Showing the deaths from CHOLERA registered in the Districts of the NORTH-WESTERN PROVINCES AND OUDH during each month of 1896.

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Eastern Districts.														
Ghazipur . . .	1,024,753	...	1	39	35	73	292	98	89	12	3	1	4	647
Ballia . . .	995,327	...	3	30	124	270	368	351	595	82	...	2	...	1,825
Benares . . .	921,943	5	67	474	436	231	154	86	70	15	23	13	...	1,574
Mirzapur . . .	1,161,508	...	38	81	216	576	338	123	44	8	...	...	10	1,434
Azamgarh . . .	1,728,625	12	2	58	235	90	225	134	114	22	3	...	2	897
Jaunpur . . .	1,264,949	1	...	128	447	284	77	86	112	6	1	...	5	1,177
Gorakhpur . . .	2,994,057	14	1	81	573	1,347	1,227	703	1,058	1,548	671	103	2	7,328
Basti . . .	1,785,844	38	8	33	1,324	989	960	519	457	332	204	79	33	4,976
Allahabad . . .	1,534,658	2	39	89	207	456	179	35	40	23	32	5	...	1,107
Fatehpur . . .	699,157	...	...	...	...	70	89	...	...	3	...	...	...	162
Cawnpore . . .	1,209,695	...	...	2	4	34	14	19	12	...	...	...	...	85
Fatehgarh . . .	858,687	...	...	1	2	6	7	5	...	2	9	2	...	34
Districts south of, or bordering on, the Jumna.														
Banda . . .	705,832	...	...	...	67	3,037	989	45	18	...	1	4	...	4,151
Hamirpur . . .	513,720	...	...	...	6	677	418	252	143	31	...	1	...	1,528
Jalaun . . .	396,361	...	...	...	...	...	94	233	221	39	5	...	...	592
Etawa . . .	727,629	...	...	...	1	2	4	...	1	3	...	...	...	11
Jhansi . . .	683,619	...	...	2	1,268	859	2,179	952	663	172	27	...	...	6,122
Districts lying west of 80°, east longitude.														
Bareilly . . .	1,040,691	1	...	2	...	...	...	29	933	2,124	1,020	148	65	4,322
Pilibhit . . .	485,366	...	...	...	...	...	...	1*	21	317	698	356	1	1,394
Budaun . . .	925,168	...	...	...	...	...	...	1	1	...	1	5	5	13
Shahjahanpur . . .	918,981	...	...	...	...	1	...	8	411	1,513	1,657	58	...	3,648
Moradabad . . .	1,179,398	2	2	1	6	3	3	12	374	1,986	941	53	5	3,388
Etah . . .	702,063	...	...	...	14	7	27	4	17	19	...	1	...	89
Mainpuri . . .	762,163	1	...	...	...	...	...	2	...	...	...	...	...	2
Aligarh . . .	1,043,172	...	...	4	17	6	13	61	365	120	20	...	...	606
Bulandshahr . . .	949,914	...	...	...	1	19	40	6	39	111	53	...	...	269
Agra . . .	1,003,796	...	...	1	4	15	41	19	16	3	...	...	...	99
Muttra . . .	713,421	...	1	11	72	119	95	11	7	11	3	...	...	330
Meerut . . .	1,391,458	...	...	...	2	80	3	19	153	81	...	...	...	338
Muzaffarnagar . . .	772,874	...	...	...	...	18	1	3	68	41	3	...	...	134
Saharanpur . . .	1,001,280	...	1	...	5	14	4	2	68	193	23	4	1	315
Bijnor . . .	794,070	4	...	...	3	2	1	...	28	578	283	2	...	901
Dehra Dun . . .	168,135	...	...	...	5	7	26	48	111	15	2	1	...	215
Naini Tal . . .	362,248	...	...	3	1	3	...	101	361	661	325	12	18	1,485
Almora . . .	411,501	...	...	11	18	90	50	70	319	51	...	...	...	609
Garhwal . . .	407,818	...	...	...	...	23	13	243	572	149	13	18	...	1,031
Oudh.														
Partabgarh . . .	924,974	5	5	20	108	569	84	5	...	...	...	2	...	798
Rae Bareli . . .	1,036,521	4	...	...	135	466	141	5	5	1	...	...	...	757
Sultanpur . . .	1,075,851	25	...	3	155	196	115	2	...	4	...	...	4	504
Fyzabad . . .	1,216,959	17	7	28	252	101	56	36	42	56	116	99	15	845
Bara Banki . . .	1,130,906	...	...	3	120	373	168	90	112	21	3	...	7	897
Lucknow . . .	774,163	2	1	3	24	8	26	109	257	17	11	...	...	458
Unao . . .	953,636	...	...	...	5	68	13	...	...	5	...	...	...	91
Gonda . . .	1,459,229	...	3	27	1,332	1,019	759	374	504	257	95	13	22	4,405
Bahraich . . .	1,000,432	7	...	5	336	165	42	93	155	232	193	41	2	1,271
Kheri . . .	903,615	...	...	4	...	...	3	...	7	447	842	215	3	1,521
Sitapur . . .	1,075,413	6	...	...	59	85	37	44	24	317	589	56	5	1,222
Hardoi . . .	1,113,211	...	...	1	4	22	3	81	769	1,298	1,299	46	17	3,540
TOTAL	16,904,791	145	179	1,145	7,653	12,480	9,380	5,138	9,366	12,926	9,169	1,340	226	69,147

* On enquiry it was found not to be a case of real cholera.

Appendix A to Section VI—continued.

STATEMENT NO. IV.—Showing the deaths from CHOLERA registered in the Districts of the PUNJAB during each month of 1896.

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Gurgaon	668,863	..	..	..	..	40	246	18	32	8	9	..	..	353
Delhi	635,224	..	..	..	..	2	2	..	14	1	..	..	1	20
Rohtak	590,446	..	..	..	..	19	1	..	..	..	..	..	..	20
Hissar	775,808	..	..	..	..	..	..	..	..	..	..	..	..	..
Karnal	683,652	..	..	..	..	5	2	..	..	..	..	..	..	7
Umballa	982,291	..	..	..	..	..	5	..	26	69	5	..	..	105
Simla	35,246	..	..	..	..	..	..	..	..	..	..	..	..	..
Jullundur	891,347	..	..	..	..	..	..	..	..	..	..	..	..	..
Ludhiana	648,055	..	..	..	1	..	14	..	..	..	..	..	..	15
Hoshiarpur	1,011,644	..	..	..	..	..	..	..	..	..	..	..	..	..
Kangra	759,458	..	..	..	..	..	..	13	431	137	..	..	..	581
Gurdaspur	940,785	..	..	..	..	..	..	..	..	..	..	..	..	..
Sialkot	1,098,712	..	..	..	..	..	..	5	..	..	..	..	..	5
Amritsar	990,990	..	..	..	..	26	42	1	7	..	..	..	..	76
Gujrat	760,823	..	..	..	..	..	..	..	..	..	..	..	..	..
Gujranwala	690,061	..	..	..	..	6	22	23	11	..	..	..	..	62
Lahore	1,055,619	..	..	..	..	1	16	52	115	79	20	8	..	291
Ferozepur	861,499	..	..	..	..	..	..	..	..	..	..	..	..	..
Montgomery	499,449	..	..	..	..	..	..	45	..	..	..	..	..	45
Mooltan	620,859	..	..	..	..	..	..	..	..	..	..	..	..	..
Muzaffargarh	381,072	..	..	..	..	..	..	..	..	..	17	5	..	22
Dera Ghazi Khan	399,860	..	..	..	..	..	..	..	15	90	167	20	..	292
Dera Ismail Khan	482,463	..	..	..	..	..	..	..	..	17	..	..	..	17
Jhang	436,821	..	..	..	..	..	..	..	..	..	..	..	..	..
Shahpur	493,535	..	..	..	..	..	36	2	12	2	..	..	..	52
Jhelum	605,774	..	..	..	..	..	4	22	10	..	..	..	..	36
Hazara	476,125	..	..	..	..	53	33	1	1	..	..	..	..	88
Rawalpindi	845,259	..	..	..	..	1,070	608	520	78	95	3	..	..	2,374
Peshawar	671,156	..	..	..	..	23	175	175	91	11	..	..	..	475
Kohat	190,514	..	..	..	..	..	..	..	1	15	8	..	..	24
Bannu	369,972	..	..	..	..	..	..	160	1	23	2	..	..	186
TOTAL	20,553,982	..	..	..	1	1,245	1,206	1,037	845	547	231	33	1	5,146

STATEMENT NO. V.—Showing the deaths from CHOLERA registered in the Districts of the CENTRAL PROVINCES during each month of 1896.

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Raipur	1,255,698	..	266	408	635	2,583	4,551	1,708	893	217	14	26	..	11,301
Bilaspur	827,433	..	526	268	261	2,350	3,588	1,103	791	127	18	45	17	9,094
Sambalpur	388,205	..	..	..	..	..	3	155	358	153	1	..	..	670
Jubbulpore	574,838	..	..	658	1,630	535	397	177	235	9	..	..	..	3,641
Seoni	370,767	..	..	7	496	1,659	865	271	186	27	5	..	..	3,516
Mandla	339,373	..	..	59	702	1,109	1,842	1,079	398	143	12	..	..	5,344
Narsinghpur	367,026	..	..	..	82	328	239	95	86	5	18	1	..	854
Murwara	173,308	..	8	159	125	32	118	10	..	..	..	..	..	452
Damoh	325,613	..	1	308	1,587	655	406	89	11	..	48	13	..	3,118
Saugor	591,743	..	..	307	892	1,038	1,063	584	252	22	14	..	..	4,172
Chhindwara	339,443	..	..	..	..	488	393	129	65	37	11	..	..	1,123
Betul	323,196	..	..	71	156	66	..	..	24	4	24	..	..	345
Hoshangabad	525,276	7	15	39	60	42	36	7	91	98	19	..	..	414
Nimar	172,120	12	..	..	..	17	..	47	194	128	19	..	..	417
Bhandara	742,850	..	..	4	249	171	67	..	82	98	9	10	134	824
Nagpur	757,862	..	..	332	584	147	3	259	519	196	39	24	5	2,108
Balaghat	383,331	..	13	9	128	194	68	110	124	36	16	11	40	749
Wardha	400,854	10	..	250	708	188	74	336	349	290	66	6	3	2,280
Chanda	561,099	..	..	..	112	1,333	287	213	262	205	80	7	9	2,508
Burhanpur	81,366	..	..	..	..	..	..	12	11	21	11	..	..	55
TOTAL	9,501,401	29	829	2,879	8,407	12,935	14,000	6,384	4,931	1,816	424	143	208	52,985

Appendix A to Section VI—continued.

STATEMENT NO. VI.—Showing the deaths from CHOLERA registered in the Districts of BERAR during each month of 1896.

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Akola . . .	580,590	...	...	27	458	375	59	270	126	94	15	...	...	1,424
Buldana . . .	478,029	...	...	28	272	277	53	68	208	199	178	36	...	1,319
Basim . . .	398,181	...	...	1	363	643	326	1,064	367	119	2	6	...	2,891
Amraoti . . .	655,645	32	142	652	1,082	163	4	222	155	102	101	66	7	2,728
Ellichpur . . .	259,164	6	6	293	215	13	1	42	57	15	2	4	3	657
Wun . . .	471,613	...	...	54	479	839	210	638	687	315	23	...	...	3,245
TOTAL . . .	2,843,222	38	148	1,055	2,869	2,310	653	2,304	1,600	844	321	112	10	12,264

STATEMENT NO. VII.—Showing the deaths from CHOLERA registered in the Native States of RAJPUTANA and CENTRAL INDIA during each month of 1896.

NATIVE STATE.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
<i>Rajputana.</i>														
Meywar (Oodeypore)	1,727,899	...	...	...	...	554	133	23	...	...	...	...	...	710
Kotah . . .	526,263	...	...	...	...	...	...	56	14	16	9	...	...	95
Marwar (Jodhpur)	2,519,868	...	...	...	119	554	859	765	13	...	16	...	...	2,326
Bhurlpore . . .	640,303	...	...	...	...	...	...	...	46	...	...	...	...	46
Jhallawar . . .	343,601	...	...	...	...	...	14	65	326	...	...	...	...	405
Sirohi . . .	186,025	...	...	...	...	17	37	...	...	...	...	...	...	54
Doongerpur . . .	98,448	...	...	...	...	...	...	25	46	...	...	...	...	71
Bikanir . . .	831,955	11	7	7	58	7	...	...	...	...	...	...	...	90
TOTAL . . .	6,874,362	11	7	7	177	1,132	1,043	934	445	16	25	...	...	3,797
<i>Central India.</i>														
Baghelkhand . . .	1,731,180	1	21	299	867	203	203	438	621	293	...	...	...	2,946
Indore . . .	Not stated	...	...	...	...	...	8	213	37	1	...	...	...	259
Bundelkhand . . .	Ditto . . .	...	74	201	354	788	1,473	3,462	1,407	55	2	...	...	7,816
Bhopal . . .	12,248	...	...	...	...	63	122	508	361	...	...	...	...	1,054
Bhopawar . . .	Not stated	...	...	...	...	...	115	295	201	159	...	...	...	770
Gwalior . . .	Ditto	...	...	...	...	190	369	1,142	385	53	...	...	...	2,139
Malwa . . .	Ditto	...	...	...	1	114	58	265	336	1	5	2	...	782
TOTAL . . .	Not stated	1	95	500	1,222	1,358	2,348	6,323	3,348	562	7	2	...	15,766
GRAND TOTAL . . .	Not stated	12	102	507	1,399	2,490	3,391	7,257	3,793	578	32	2	...	19,563

Appendix A to Section VI—continued.

STATEMENT NO. VIII.—*Showing the deaths from CHOLERA registered in the Districts of HYDERABAD during each month of 1896.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Raichur . . .	Not stated	...	...	80	115	90	48	78	21	9	...	...	...	441
Hingoli . . .	Ditto	...	...	...	...	...	...	26	1	3	...	...	...	30
Mominabad . . .	Ditto	...	...	...	...	...	...	...	...	...	...	...	...	...
Bolarum . . .	Ditto	...	...	...	...	...	...	...	19	12	...	...	...	31
Hyderabad . . .	Ditto	...	...	...	...	...	...	6	9	...	...	...	...	15
Jalna . . .	Ditto	...	...	...	...	...	...	...	...	2	5	...	...	7
Aurungabad . . .	Ditto	...	...	...	...	...	...	...	1	...	...	...	...	1
TOTAL . . .	Not stated	...	...	80	115	90	48	110	51	26	5	...	...	525

STATEMENT NO. IX.—*Showing the deaths from CHOLERA registered in the Districts of the MADRAS PRESIDENCY during each month of 1896.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Ganjam . . .	1,236,097	104	16	8	3	...	...	23	367	481	263	136	209	1,610
Vizagapatam . . .	1,630,586	...	...	1	...	...	...	...	70	369	97	19	18	574
Godavari . . .	2,077,858	...	...	...	...	...	1	...	130	350	179	16	...	676
Kistna . . .	1,855,024	...	...	...	...	...	...	4	4	32	3	10	12	65
Nellore . . .	1,463,357	...	...	...	...	...	23	...	...	21	13	...	13	70
Madras . . .	436,375	...	...	...	...	...	3	4	7	43	14	8	11	90
Chingleput . . .	1,199,901	2	...	...	...	...	6	1	...	8	42	59	219	337
South Arcot . . .	2,162,336	150	168	164	34	148	350	597	326	251	180	469	2,671	5,508
Trichinopoly . . .	1,371,726	4	11	...	1	9	...	18	8	5	61	644	2,660	3,421
Tanjore . . .	2,227,081	10	2	4	32	5	12	23	35	17	199	980	2,368	3,687
Madura . . .	1,573,318	2	2	...	...	...	...	...	...	...	66	429	2,471	2,970
Tinnevelly . . .	1,915,702	124	74	32	1	1	...	1	...	1	...	68	1,958	2,260
Kurnool . . .	817,660	10	3	...	47	72	238	395	379	181	60	2	...	1,387
Cuddapah . . .	1,271,721	...	...	...	...	...	2	6	70	145	61	50	249	583
Bellary . . .	890,485	26	5	9	157	694	1,354	1,110	474	170	165	28	13	4,205
Anantapur . . .	727,319	...	...	...	...	1	39	596	471	468	454	286	204	2,519
North Arcot . . .	2,113,585	...	...	...	29	325	307	418	207	123	64	38	230	1,741
Salem . . .	1,961,784	...	...	...	...	51	297	230	282	295	836	552	1,327	3,870
Coimbatore . . .	2,003,911	...	...	...	...	...	...	143	1,068	2,730	1,904	1,996	2,890	10,731
Nilgiris . . .	96,765	...	...	...	...	...	...	...	...	6	11	4	16	37
South Canara . . .	1,052,002	9	...	1	...	...	...	...	2	1	...	...	...	13
Malabar . . .	2,636,674	8	100	55	18	62	67	49	165	201	141	167	460	1,493
TOTAL . . .	32,721,267	449	381	274	322	1,368	2,699	3,618	4,065	5,898	4,813	5,961	17,999	47,847

Appendix A to Section VI—continued.

STATEMENT NO. X.—Showing the deaths from CHOLERA registered in the Districts of the BOMBAY PRESIDENCY during each month of 1896.

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Bombay City . . .	806,144	8	2	17	42	83	53	80	140	47	7	2	2	483
Tanna . . .	818,967	3	..	18	29	184	462	461	365	36	2	..	..	1,560
Colaba . . .	594,779	91	39	113	68	51	191	306	187	179	10	..	4	1,239
Surat . . .	649,824	..	..	..	135	305	256	234	124	61	11	16	..	1,142
Ahmedabad . . .	920,928	1	..	..	133	448	500	409	58	..	..	..	..	1,549
Broach . . .	341,450	..	..	..	..	4	8	576	75	14	..	..	..	677
Panch Mahals . . .	313,381	..	..	..	..	4	17	244	76	1	..	..	..	342
Kaira . . .	871,529	..	..	..	..	32	122	581	64	8	..	..	..	807
Khandesh . . .	1,460,319	..	..	1	83	337	23	348	663	259	21	5	..	1,740
Ahmednagar . . .	887,656	..	..	7	134	114	414	1,523	620	66	13	..	1	2,892
Nasik . . .	841,087	6	94	180	36	224	77	234	230	35	..	..	..	1,136
Sholapur . . .	750,255	..	..	..	..	100	183	287	222	137	25	22	4	980
Satara . . .	1,225,511	4	..	..	98	674	585	943	763	368	200	27	46	3,708
Bijapur . . .	796,286	9	..	249	932	1,442	834	1,066	508	63	63	62	22	5,249
Belgaum . . .	1,011,453	..	..	..	..	107	815	908	417	137	65	192	495	3,136
Dharwar . . .	1,059,533	..	..	..	117	216	309	262	370	114	101	256	263	2,008
Kanara . . .	446,156	..	..	..	..	..	12	4	3	27	..	..	74	120
Ratnagiri . . .	1,105,862	9	7	3	14	7	45	124	60	17	5	..	..	291
Poona . . .	1,061,419	13	22	75	1,101	1,576	572	1,182	1,479	253	62	5	..	6,340
Thar and Parkar . . .	332,401	..	..	..	..	..	5	..	..	..	..	..	..	5
Shikarpur . . .	915,058	..	..	..	..	..	..	..	..	..	..	..	..	..
Karachi . . .	561,013	..	..	..	..	..	..	..	..	..	..	..	..	..
Hyderabad . . .	883,836	..	..	..	..	..	..	..	..	..	..	..	..	..
Upper Sind . . .	174,469	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL . . .	18,820,346	144	164	663	2,942	5,908	5,483	9,772	6,424	1,822	584	587	911	35,404

STATEMENT NO. XI.—Showing the deaths from CHOLERA in the Districts of LOWER BURMA during each month of 1896.

DISTRICT.	Population.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Akyab . . .	414,479	3	5	7	..	..	1	..	..	..	..	1	2	19
Kyaukpyu . . .	163,832	..	..	..	..	..	..	..	..	..	..	..	..	..
Sandoway . . .	77,134	..	1	..	..	..	..	..	..	..	..	..	..	1
Rangoon . . .	180,324	8	3	1	10	3	6	3	1	3	1	18	12	69
Hanthawaddy . . .	396,887	57	8	3	41	73	42	34	15	4	..	..	12	289
Pegu . . .	237,594	10	..	..	1	..	..	..	..	..	..	..	33	44
Tharrawaddy . . .	347,454	..	..	..	..	..	105	21	30	66	84	78	54	438
Prome . . .	360,252	6	..	..	..	7	5	36	..	2	70	11	2	139
Thongwa . . .	333,443	29	22	30	70	88	89	64	21	8	..	3	6	430
Bassein . . .	299,466	..	..	1	10	128	92	183	138	36	..	..	8	596
Henzada . . .	438,131	4	1	..	11	11	52	229	57	33	10	2	..	410
Myaungmya . . .	217,878	18	24	29	142	109	46	28	32	10	3	..	..	441
Amherst . . .	233,539	1	3	..	..	..	..	..	..	..	..	..	..	4
Tavoy . . .	94,921	9	1	..	..	..	..	..	..	..	..	..	..	10
Mergui . . .	73,748	..	..	..	..	..	..	..	..	..	..	..	..	..
Thaton . . .	266,620	1	..	..	3	..	..	..	..	..	..	..	..	4
Toungoo . . .	184,434	45	7	..	..	..	1	..	..	..	..	2	9	64
Thayetmyo . . .	194,637	..	..	..	..	..	..	..	1	..	..	..	..	1
TOTAL . . .	4,514,773	191	75	71	288	419	439	598	295	162	168	115	138	2,959

Appendix A to Section VI—concluded.

STATEMENT NO. XII.—*Showing the deaths from CHOLERA registered in the Districts of AJMERE-MERWARA during each month of 1896.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Ajmere . . .	422,359	...	...	...	2	1	4	1	4	...	...	...	...	12
Merwara . . .	119,999	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL .	542,358	...	...	...	2	1	4	1	4	...	...	...	...	12

STATEMENT NO. XIII.—*Showing the deaths from CHOLERA registered in the Districts of MYSORE and COORG during each month of 1896.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
MYSORE.														
Bangalore . . .	702,913	...	...	...	...	1	3	3	15	7	1	12	16	58
Kolar . . .	591,030	...	...	...	1	53	150	138	45	5	1	1	2	396
Tumkur . . .	580,786	1	...	...	...	...	...	...	36	...	...	...	...	37
Mysore . . .	1,181,814	...	...	...	...	1	...	...	110	83	250	392	432	1,268
Hassan . . .	514,952	1	...	2	1	...	...	8	10	4	90	56	36	208
Shimoga . . .	527,981	...	...	...	1	...	...	...	...	...	...	3	18	22
Kadur . . .	330,063	...	...	...	...	...	...	...	...	...	...	...	19	19
Chitaldroog . . .	413,984	11	...	...	...	20	20	36	5	...	...	...	...	92
<hr/>														
TOTAL . . .	4,843,523	13	...	2	3	75	173	185	221	99	342	464	523	2,100
<hr/>														
COORG.														
Coorg . . .	173,055	...	...	...	...	...	...	11	27	6	...	...	5	49
<hr/>														
GRAND TOTAL . . .	5,016,578	13	...	2	3	75	173	196	248	105	342	464	528	2,149

Appendix B to Section VI.

Statement showing the number of Attendants on Cholera cases treated in the Hospitals of European and Native Regiments and in Fails during 1896, and the number of these attacked by Cholera.

No.	STATION.	Community.	Number of cases of cholera treated.	MEDICAL OFFICERS, HOSPITAL ASSISTANTS, AND OTHER ATTENDANTS ON CHOLERA CASES.	
				Number.	Number of these attacked with cholera.
European Troops.					
1	Calcutta	Station Hospital	2	21	None.
2	Barrackpore	Royal Munster Fusiliers	1	11	None.
3	Dinapore	Station Hospital	2	7	None.
4	Benares	Ditto	13	30	None.
5	Muttra	Ditto	2	7	None.
6	Rurki	Ditto	1	10	None.
7	Nowgong	Dett., R. W. Fusiliers	2	10	None.
8	Jhansi	British Troops	16	43	None.
9	Saugor	Dett., Royal Irish Regiment	2	17	I
10	Ditto	British Officers' Mess	3	5	None.
11	Amritsar	2nd Battalion, R. S. Fusiliers	1	4	None.
12	Rawal Pindi	8th M. B. R. A. . . .	1	about 14	None.
13	Campbellpore	Station Hospital	1	6	None.
14	Rangoon	2nd Battalion, Suffolk Regt. . . .	1	4	None.
15	Mandalay	2nd Battalion, Royal Scots	1	19	None.
16	Bangalore	British Troops	4	12	None.
17	Indore	Dett., 1st Royal Fusiliers	2	12	None.
18	Mhow	1st Battalion, Royal Fusiliers	2	12	None.
19	Ahmedabad	55th F. B. R. A. . . .	1	6	None.
20	Ahmednagar	2nd Battalion, Mid. Regt. and 40th F. B. R. A. . . .	1	10	None.
21	Poona	2nd Battalion, Durham L. I., and 2nd Battalion, Royal Irish Rifles	14	22	None.
22	Deolali	Dett., 2nd Royal Dublin Fusiliers	1	5	None.
TOTAL			74	287	I
Native Troops.					
1	Fort William	18th B. I. . . .	1	7	None.
2	Cuttack	Left Wing, 6th M. I. . . .	2	5	None.
3	Dinapore	4th (P. A. V.) B. I. . . .	2	10	None.
4	Benares	10th B. I. . . .	1	4	None.
5	Fyzabad	3rd Bengal Cavalry	10	12	None.
6	Allahabad	5th Bengal Infantry	2	7	None.
7	Fort Allahabad	Dett., 3rd ditto	1	6	None.
8	Dehra Dun	G. G.'s Body-Guard	1	10	None.
9	Ditto	2-2nd Gurkha Rifles	2	12	None.
10	Ditto	1-2nd (P. W. O.) Gurkhas	4	17	None.
11	Agra	Hd.-Qrs., 17th B. I. . . .	4	12	None.
12	Jhansi	1st B. I. . . .	2	5	None.
13	Nowgong	5th Bengal Cavalry	4	13	None.
14	Lansdowne	9th Gurkha Rifles	3	5	None.
15	Rawal Pindi	27th P. I. . . .	1	6	None.
16	Ditto	33rd P. I. . . .	2	9	None.
17	Ditto	Dett., Guides Native Cavalry	1	2	None.
18	Kohat	No. 2 D. M. B. . . .	1	3	None.
19	Ditto	4th Sikh Infantry	2	6	None.
20	Ditto	3rd P. C. . . .	8	9	None.
21	Ditto	5th P. I. . . .	1	5	None.
22	Secunderabad	22nd M. I. . . .	3	9	None.
23	Ditto	19th M. I. . . .	4	7	None.
24	Bangalore	1st M. Pioneers	4	9	None.
25	Ditto	21st ditto	1	7	None.
26	Ditto	Q. O. Sappers and Miners	4	10	None.
27	Trichinopoly	4th M. Pioneers	6	21	None.
28	Ditto	11th M. I. . . .	1	9	None.
29	Ditto	23rd W. L. I. . . .	1	9	None.
30	Vizianagram	20th M. I. . . .	1	6	None.
31	Berhampore	Head-Quarters and R. W. 6th M. I. . . .	6	8	None.
32	Indore	Dett., Bhopal Battalion	1	5	None.
33	Ditto	Dett., 20th Bombay Infantry	1	7	None.
34	Ahmedabad	5th Bombay L. I. . . .	1	6	None.
35	Baroda	8th Bombay I. . . .	3	10	None.
36	Kamptee	7th M. I. . . .	15	44	I
37	Raipur	Hd.-Qrs. and L. W. 2nd M. I. . . .	1	6	None.
38	Ahmednagar	Followers' Hospital (4th F. B. R. A.)	1	8	None.
Carried over			109	346	I

Appendix B to Section VI—concluded.

Statement showing the number of Attendants on Cholera cases treated in the Hospitals of European and Native Regiments and in Jails during 1896, and the number of these attacked by Cholera—concluded.

No.	STATION.	Community.	Number of cases of cholera treated.	MEDICAL OFFICERS, HOSPITAL ASSISTANTS, AND OTHER ATTENDANTS ON CHOLERA CASES.	
				Number.	Number of these attacked with cholera.
		Brought forward	109	346	1
		<i>Native Troops—continued.</i>			
39	Sirur	4th Bombay Cavalry	18	46	1
40	Poona	2nd Bombay Lancers	2	4	None.
41	Kirkee	Bombay Sappers and Miners	4	9	None.
42	Ditto	Native Section, F. B. R. A. Lines	5	8	1
43	Ditto	28th Bo. Pioneers	1	5	None.
44	Satara	10th Bo. L. I.	1	4	None.
45	Thana	Dett., 22nd Bo. N. I.	1	5	None.
46	Agar	1st C. I. Horse	7	About 28	None.
47	Goonā	2nd ditto	6	9	None.
48	Sirdarpur	Malwa Bhil Corps	33	48	3
49	Kherwara	Meywar Bhil Corps	1*	8	None.
50	Sehore	Bhopal Battalion	8†	22	1
51	Jalna	6th Infantry, H. C.	1	5	None.
52	Hingoli	No. 3 Field Battery, H. C.	2‡	...	...
53	Ditto	1st Infantry, H. C.	9	20	None.
54	Ditto	4th Lancers, H. C.	2	16	None.
55	Bolarum	2nd Lancers, H. C.	1	11	None.
56	Raichur	5th Infantry, H. C.	1	11	None.
		TOTAL	212	605	7
		JAILS.			
1	Akyab	Jail	1	5	None.
2	Henzada	"	1	5	"
3	Bassein	"	1	9	"
4	Myingyan	"	6	8	"
5	Dhubri	"	2	9	"
6	Nowgong	"	1	5	"
7	Presidency	"	1	6	"
8	Ditto	"	1	7	"
9	Alipore	"	2	7	"
10	Jessore	"	1	5	"
11	Krishnaghur	"	1	4	"
12	Berhampore	"	1	5	"
13	Hooghly	"	2	6	"
14	Burdwan	"	9	7	"
15	Rampore Boalia	"	2	9	"
16	Bogra	"	1	3	"
17	Ditto	"	1	4	"
18	Barisal	"	4	8	"
19	Patuakhally	Sub-Jail	3	2	"
20	Pirojpur	"	2	9	"
21	Dacca	Jail	1	6	"
22	Khurda	Sub-Jail	1	6	"
23	Balasore	Jail	1	7	"
24	Ditto	"	1	7	"
25	Ditto	"	1	7	"
26	Midnapore	"	1	5	"
27	Bankura	"	7	7	"
28	Purulia	"	1	9	"
29	Gya	"	3	14	"
30	Bankipore	"	28	36	4§
31	Arrah	"	1	7	None.
32	Darbhangā	"	30	34	4
33	Madhubani	Sub-Jail	1	3	None.
34	Chapra	Jail	4	15	"
35	Saugor	"	2	5	"
36	Damoh	"	13	4	"
37	Sambalpur	"	4	5	"
38	Raipur	"	1	9	"
39	Seoni	"	2	6	"
40	Balaghat	"	7	11	"
		TOTAL	153	326	8
		GRAND TOTAL	439	1,218	16

* An European officer.

† Including one European officer.

‡ Reported after death. No medical officer, etc., attended the cases.

§ Including one sweeper and excluding the Medical Officer who had diarrhoea on the 30th and 31st May 1896.

Appendix C to Section VI.

Statistics of Charitable Medical Relief in the different Provinces of India for the year 1896.

PROVINCE.	NUMBER OF DISPENSARIES.				Population, Census of 1891.	Area in square miles.	Total number of patients treated.	ONE DISPENSARY.		COST OF MEDICAL RELIEF.			REMARKS.
	1st class.	2nd class.	3rd class.	TOTAL.				To population.	To area in square miles.	Direct contributions by Government.	Paid from local sources.*	TOTAL.	
I	2	3	4	5	6	7	8	9	10	11	12	13	14
Bengal	30	240	185	455	70,665,427†	144,411‡	2,684,610	155,309	318	70,905	7,58,468	8,29,373	
Assam	13	87	1	101	5,476,833	29,433‡	568,696	54,226	291	52,944	1,55,194	2,08,138	
North-Western Provinces and Oudh	2	268	80	350	46,905,085	107,672‡	3,955,359	134,015	308	2,99,122	3,92,296	6,91,418	
Punjab	6	254	7	267	20,860,913	110,463‡	3,122,994	78,131	414	22,195	5,11,730	5,33,925	
Central Provinces	6	80	9	95	12,944,805	71,582‡	1,374,129	136,261	756	52,757	1,30,000	1,82,757	
Berar	45	1	...	46	2,897,040	16,068‡	344,634	62,979	349	62,349	26,185	88,534	
Lower Burma	2	35	7	44	4,658,627	77,099‡	439,854	105,878	1,752	9,881	2,99,878	3,09,759	
Upper Burma	35	17	...	52	3,098,400	83,473§	268,635	59,585	1,605	53,346	68,216	1,21,562	
Madras	13	433	29	475	34,336,196	124,943‡	4,042,533	72,287	263	97,289	9,09,758	10,07,047	
Bombay	41	165	108	314	26,694,594	124,130‡	2,319,346	85,014	395	3,51,337	4,10,455	7,61,792	
Coorg . . . . .	...	2	5	7	173,055	1,583‡	45,147	24,722	226	9,152	6,902	16,054	
TOTAL	193	1,582	431	2,206	228,710,975	890,857	19,165,937	968,407	6,677	10,81,277	36,69,082	47,50,359	

* Mainly by Municipalities and District and Local Boards, provision for which is made in the allotments from Provincial Funds. The differences in proportions between the entries in columns 11 and 12 are due to different ways of contributing followed by the several Local Governments and Administrations : some contributing directly, others doing so by including their contributions in the grants to Local Bodies for general purposes from Provincial Funds.
† This excludes the population of Calcutta.
‡ As given in the Sanitary Reports for 1896.
§ As given in the Census Report of Burma for 1891.

Appendix D to Section VI.

Anti-cholera inoculation.

As a means of preventing cholera, anti-choleraic inoculation was also tried during the year under review under the supervision, first, of Professor Haffkine, and then by Surgeon-Captain Vaughan, Deputy Sanitary Commissioner of the Western Bengal Circle, and two Assistant Surgeons acting under his general instructions. The following is Dr. Vaughan's report on the experiment:—

“The details now submitted are not quite complete ; for although most of Professor Haffkine's papers have come to hand, there are, he says, probably some registers of inoculations still among his papers in Calcutta, which, owing to his continued absence, cannot be obtained in time to be available for the purposes of the present report. The figures and facts now submitted may, however, be taken as an approximate statement of the work done in Bengal during 1896, and are set forth in the two following tables—one showing the number of inoculations performed in various places, and the other showing such results as I have been able to gather for this report. It will at once be evident that the table of results covers only a fraction of the actual number of inoculations performed, and that there are over three thousand cases in which the result of inoculation has not been ascertained, or in which there has been no result recorded. The reason for this is that in certain instances the communities among whom inoculation was performed have not since been visited by cholera, or that there has been no opportunity for making enquiries. This last remark applies more especially to the instance of inoculation among emigrants bound for the labour districts in Assam and Cachar, a class of people who furnish by far the largest number of subjects for inoculation. These emigrants for the most parts stay in the Purulia or other coolie depôts for only a few days after inoculation at the outside, and then proceed on their way, and it is in most cases extremely difficult to hear of them again, and the managers of most tea gardens have not responded to enquiries. Enquiries are, however, now in progress through the principal emigration (forwarding) agents whose coolies have been inoculated, and the returns will be reported when received.

In the table of results I have included certain cases inoculated at Belaspur, Central Provinces. These are not, however, included in the table of operations done in Bengal. Among them were two cases in which cholera occurred immediately after inoculation, and who presumably had been infected prior to the time of inoculation. They both died within 48 hours. Besides these, there had been in the batch 14 cases and 10 deaths during the 24 hours before inoculation.

The table of inoculations done in Bengal does not include those done in Calcutta and its suburbs. Nevertheless there is among Professor Haffkine's notes a paper drawing special attention to one of the series of cases done in Calcutta, and as this paper brings out certain points and has a peculiar interest, a copy of it is attached as part of this report.

The operations were performed by Professor Haffkine and by the various officers detailed for duty with him. Those done in Purulia and in the Manbhum district and in Kandra (with the exception of 491 cases done in Purulia in March and April 1896), were done under my supervision by myself and by Assistant Surgeons G. C. Mukerji and S. B. Banerji, both of whom have been specially detailed for this duty. For myself, I have actually been engaged in performing these inoculations since May 1896, and was formally appointed to supervise the work in December 1896.

The operation of protective inoculation was at first done in two stages, *i.e.*, the inoculation with what used to be termed the “first vaccine” to begin with, and later on inoculation with the “second vaccine.” For various reasons this was found to work inconveniently in practice, and as it came to be ascertained that it was quite practicable to omit the inoculation with the “first vaccine,” the operation is now limited to inoculation with the “second vaccine” only.

Anti-choleraic inoculation, as far I have known it and of it, *has always been strictly voluntary*, and the work has increased. I have said that a large section of what has been done has been among coolies bound for the tea-gardens. The conditions of

emigrant-travel are such that cholera is very frequent and often very destructive of life. It appears that the impression has gradually gained ground that the inoculated are not nearly so liable to be attacked as the uninoculated. When we first began work in Purulia, we had to go round the coolie depôts and inoculate whom we could persuade. Since then, Messrs. Driver and Stainforth, the principal forwarding agents in Purulia, have given expression to a decided preference for inoculated coolies ; and a few days ago a tea planter from the Kalain tea estate in Cachar arrived in Purulia, selected two hundred coolies, and quite spontaneously had every one of them inoculated. This gentleman declared to me that most of the coolies on the garden are inoculated, and that the place is practically free from cholera. Coolies are now brought to my work-room regularly and daily, and last month in this way we inoculated no less than 1,776 emigrants. These details do not all strictly belong to the work of 1896, but are quoted to show how it has grown.

With regard to the table of results, I have arranged the subject here practically under four heads : (1) the incidence of cholera immediately previous to the performance of inoculation, (2) that subsequent to inoculation, (3) a comparison of the percentage incidence among inoculated and uninoculated, and (4) an approximate calculation of the reduction of mortality among the inoculated population and among the inoculated persons attacked. In this table columns 1 to 19 need no explanation. Column 20 shows the proportion between column 11 and column 17, and column 21 the proportion between column 12 and column 18, and column 22 that between columns 13 and 19. Thus in the case of Serampore, we have the proportions $7.4 : 3.8 :: 1 : 0.51$, and so on.

Column 23 is obtained from column 21 thus:—In the case of Pataspur we have the proportion $7.46 : 100 :: 1 : 13.4$, from which we get the figures $100 - 13.4 = 86.6\%$ = reduction (probable) of mortality. Similarly column 24 is obtained from column 23, where possible.

In some of the instances given, the figures are too small to give much to go on in the way of percentages. So that the same scheme of results has been worked out on the total figures obtainable. It will be noticed that the results in columns 1 to 7 are not brought to bear on those in columns 20 to 24, and the reason is obvious. From this table it would appear that not only do we have a reduction in the incidence of cholera among the inoculated, but that after inoculations have been done in any community, the incidence and death-rate among the uninoculated is apparently also reduced. (Compare columns 5, 6, 7, and 17, 18, 19), and in actual practice I have noticed in the case of the three villages of Bangurda, Beliadih and Belma, and I think also in Gortopa, that there has been a remarkable cessation of cholera in the locality after inoculation, and the reason does not appear very difficult to find. For in the first place every one does not take cholera, and if it is assumed that inoculation reduces mortality by 83%, the chances are 4 to 1 against the inoculated section taking cholera in any community. But this protection lessens the chance of cholera occurring in the uninoculated section, for, taking a village like Beliadih, there is less chance of cholera occurring in 74 uninoculated persons than if there were $74 + 184 = 258$ uninoculated persons. The four instances referred to in which village outbreaks ceased in this way may be regarded as coincidences, but if coincidences come to be sufficiently multiplied, one begins to suspect their occurrence to be due to some definite cause hitherto unsuspected and hence unobserved. I only throw this out as a suggestion, but there are factors in the stopping of epidemics, such as the natural death of the virus and the causes which lead to that, in which I have not entered here, and which may co-operate with protective inoculation in putting an end to an outbreak. I have not forgotten, too, that so far I have brought forward only four instances, but this is only from the incomplete records of 1896. I trust that later on I may find similar instances for further report, and during the current year, as long as I am engaged in this work, I intend to take every advantage of the facilities offered for testing this inoculation as a means of stamping out village outbreaks of cholera.

Professor Haffkine's notes on a series of the Calcutta experiments referred to by Dr. Vaughan.

Total number of inoculated 7,690 in the affected localities of the town.

From the beginning of operations (11th March 1894) cholera affected 77 households, of which 76 contain each partly inoculated and partly uninoculated members, and one contains inoculated members only.

Cholera has occurred in the inoculated households after the following number of days since the inoculation : (1) amongst the uninoculated, and (2) amongst the inoculated members —

(2 cases).
(4 cases).
(2 cases).
(2 cases).

(2 cases).

(3 cases).

(3 cases).

(1):—1, 2, 3, 4, 5, 6, 9, 12, 13, 15, 17, 22, 34, 37, 44, 57, 62, 63, 71, 95, 99, 109, 114, 118, 119, 120, 129, 132, 139, 143, 162, 189, 191, 203, —, 240, 251, 271, 281, 284, 300, 309, 318, 319, 334, 356, 359, 362, 370, 372, 378, 383, 384, 391, 393, 394, 401, 404, 408, 416, —, 433, 446, 448, 453, —, 472, 493, 498, —, 673, —, 720, 723, 724, —, 738 days.

(2):—0, 2, 3, 4, ————— 219, ————— 421, ————— 459, ————— 512 ————— 688 ————— 735, 738 days.

(3 cases)

In the 77 households there occurred 89 deaths—77 amongst the uninoculated members and 12 amongst the inoculated.

Of the houses with mixed (inoculated and uninoculated) inhabitants, there were six (with one death in each) in which the inoculated escaped, the disease being present only in a proportion under $\frac{1}{10}$ to the uninoculated (who suffered). These houses are excluded from the calculations. The others show the following results:—

I.—During the first four days after inoculation—

167 uninoculated—6 deaths (3·59%) and 3 attacks with recovery.

259 inoculated—5 deaths (1·93%) and 1 attack with recovery;

proportion of deaths in both groups as 1·86 to 1.

II.—During the year following the first four days—

502 uninoculated—42 deaths (8·37%) and 5 attacks with recovery.

269 inoculated—1 death (0·37%);

proportion of deaths in both groups as 22·62 to 1.

III.—After the first year—

238 uninoculated—23 deaths (9·66%) and 3 attacks with recovery.

96 inoculated—6 deaths (6·25%);

proportion of deaths in both groups as 1·55 to 1.

Of the six inoculated belonging to the last (III) group, five had only the first—weak anti-cholera vaccine; the sixth was inoculated on the 3rd June 1894, before the observation made in July—August 1894 in the East Lancashire Regiment. No figures as yet available for the post-Lucknow observations (with reference to the duration of immunity).

Without making an allowance for the four days, when the effect of inoculation is not yet complete, and considering the results as a whole, from the first day of inoculation in Calcutta (11th March 1894) up to end of last month, the results are—

654 uninoculated—71 deaths (10·86%).

402 inoculated—12 deaths (2·99%);

proportion 3·63 to 1; reduction of mortality by 72·47%,

or for every 11 deaths amongst uninoculated members, there were only three deaths amongst the inoculated.

Return of Anti-choleraic Inoculations in Bengal during 1896, exclusive of Calcutta and its Suburbs.

PLACES WHERE INOCU- LATIONS WERE CARRIED ON.	EUROPEANS.				HINDUS.				MUHAMMADANS.				OTHER CLASSES.				Period for which inocu- lations were continued.	Results.	REMARKS.				
	Adults.		Children under 12 years.		Adults.		Children under 12 years.		Adults.		Children under 12 years.		Adults.		Grand Total.								
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		Total.							
I	2	3	4	5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Purulia Cooly Depôts	99	47	5	1	152	1	1	2	597	357	59	34	1,047	1,201	25th March to 1st April, 491; May, June, August to December, 710.	Vide table accompanying.	Besides these, 127 in- oculations in Ban- kura Jail on 11th May 1896, 86 in Nadia district, 344 among Railway employés in Kola, Midnapore, 759 in the district of Champaran and 2 in Muzaffarpur, total 1,318, of which details cannot be furnished, as the registers are not available.
Purulia Town	...	...	...	...	...	...	...	...	...	5	2	1	...	8	4	...	...	4	12	12	9th May 1896
Raniganj Cooly Depôts	...	...	...	...	2	4	1	...	7	...	...	...	...	...	49	6	3	2	60	67	2nd April
Ditto Paper Mills	...	...	...	...	2	...	...	...	2	45	...	4	...	49	36	...	1	...	37	88	11th April
Serampore	...	...	...	...	57	25	45	26	153	98	1	17	5	121	1	1	1	2	5	279	21st to 29th March 1896
Chaibassa	8	5	...	1	4	2	...	...	6	1	...	...	...	1	73	95	87	74	329	350	22nd to 25th May
Ranaghat	1	...	...	...	42	...	...	1	43	8	...	...	...	8	11	...	...	...	11	63	26th April
Darbhanga Jail	2	...	...	...	65	2	...	...	67	22	...	...	...	22	31	...	1	...	32	123	11th April
Bankipore Jail	...	...	...	...	4	...	...	...	4	15	...	...	...	15	79	15	...	...	94	113	31st May
Pertabganj Thana (Bha- galpur).	...	...	...	...	82	2	15	6	105	52	2	29	3	86	40	1	7	4	52	243	20th to 23rd April
Kandra, Bengal-Nagpur Railway.	1	...	...	...	9	...	...	...	9	9	...	...	...	9	7	...	...	...	7	26	16th May
Bangurdah Village (Man- bhumi).	...	...	...	...	36	...	...	4	40	3	1	...	...	4	54	...	18	5	77	121	15th June
Gortopa	...	...	...	...	32	...	11	3	46	6	...	6	...	12	3	...	...	...	3	61	8th July
Beladih	...	...	...	...	58	...	43	16	117	1	...	...	1	2	33	...	29	3	65	184	25th and 26th July
Maroo	...	...	...	...	15	...	4	...	19	1	...	...	...	1	...	...	...	...	...	20	27th July
Belma	...	...	...	...	77	4	18	10	109	7	...	7	...	14	9	...	...	5	14	137	3rd August
Rudalpara (Cham- paran).	...	...	...	...	2	...	5	...	7	...	...	...	...	...	...	...	...	...	...	7	30th September
GRAND TOTAL	12	5	...	1	586	86	147	67	886	274	7	64	9	354	1,027	475	206	129	1,837	3,095			

Vide table accompanying.

Table of Results of Anti-choleraic Inoculations.

Date.		Place where inoculations were performed.	INCIDENCE OF CHOLERA PREVIOUS TO INOCULATION.						INCIDENCE OF CHOLERA SUBSEQUENT TO INOCULATIONS.												RATIOS OF INCIDENCE OF CHOLERA IN THE INOCULATED TO THAT IN THE UNINOCULATED POPULATION UNDER OBSERVATION SUBSEQUENT TO INOCULATION IN RESPECT OF—					INCREASE OR REDUCTION OF MORTALITY ON—		REMARKS.
			AMONG INOCULATED PERSONS.			AMONG UNINOCULATED PERSONS.			AMONG INOCULATED PERSONS.						AMONG UNINOCULATED PERSONS.						Percentage of—							
			Percentage of—			Percentage of—			Percentage of—			Percentage of—			Percentage of—			Percentage of—			Percentage of—							
			Population under observation.	Number attacked.	Number died.	Attacks to population.	Deaths to population.	Deaths to attacks.	Population under observation.	Number attacked.	Number died.	Attacks to population.	Deaths to population.	Deaths to attacks.	Population under observation.	Number attacked.	Number died.	Attacks to population.	Deaths to population.	Deaths to attacks.	Population under observation.	Number attacked.	Number died.	Attacks to population.	Deaths to population.				Deaths to attacks.	Whole population under observation.	Population attacked.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26			
16th March 1896		Bilaspur	264	14	10	5'3	3'7	71'4	150	2	1	1'03	0'67	50'0	100	5	5	5%	5%	100%	1 to 4'9	1 to 7'46	1 to 2	Decrease 86'6	50%	The ten deaths in column 4 occurred the day before inoculation.		
21st March 1896 to 29th March 1896.		Serampore						27	2	1	7'4	3'7	50'0	51	2	1	38	1'9	50%	1 to 0'51	0'51	1 to 1	Increase 198'7%	Nil	Two cases specially referred to in report not included here. First vaccine only injected.			
		Ditto						42	1	...	2'4	...	...	51	3	1	5'7	3'8	33'3%	1 to 2'32	0 to 3'8	0 to 33'3	Decrease 67'9	?	First vaccine only used. Observations made within first two days after the inoculation.	
11th April 1896		Darbhangra Jail	234	14	10	5'9	4'3	71'4	110	5	3	4'5	2'7	60	99	11	11	11'1	11'1	100	1 to 2'4	1 to 4'1	1 to 1'7	75'7	51'1	Second vaccine used direct for the first time without previous use of first vaccine; first time inoculations done during epidemic.		
11th May 1896		Bankura Jail						111	1	...	0'9	...	...	...	110	5	1	4'5	0'9	20	1 to 5	0 to 0'9	0 to 20	?	?	Second vaccine only used.
15th June 1896		Village of Bangurda (Manbhum).	350	78	60	22'2	17'1	61'2	121	...	...	...	...	...	169	13	3	7'6	1'7	23	0 to 7'6	0 to 1'7	0 to 23	?	?	Cases occurred between 2nd and 9th days, inclusive, after inoculation.
25th July 1896		Village of Bhellidih (Manbhum).	300	50	42	16'6	14	84	184	1	...	0'5	...	...	74	5	4	6'7	4'05	80	1 to 12'4	0 to 4'5	0 to 80	?	?	
26th July 1896																												
3rd August 1896		Village of Belma (Manbhum).	350	36	29	10'3	8'2	80'6	137	...	...	...	...	...	184	2	2	1'08	1'08	100	0 to 1'08	1 to 1'08	0 to 100	?	?	
		TOTAL	498	192	151	12'9	1'08	78'6	882	12	5	1'3	0'56	41'6	838	46	28	5'5	3'3	60'8	1 to 4'2	1 to 5'9	1 to 1'5	83'1%	60'6%			

SECTION VII.

GENERAL HISTORY OF VACCINATION.

188. The total number of vaccinations performed in 1896-97 by all agencies among the civil population throughout British India, was 8,019,836, as compared with 7,912,086, in 1895-96. Of the total, 7,385,791 were primary operations, of which 6,936,842 succeeded, and 634,045 were re-vaccinations, of which 388,251 proved successful. Notwithstanding the general increase, there was a falling off in some provinces, either in the number of primary operations, or in the number of re-vaccinations, or in the numbers of both, the total diminution being most marked in the Punjab and the Central Provinces.

As usual, the average number of vaccinations performed by vaccinators was highest in the Punjab and lowest in Bengal. In the vaccinations performed by the special establishments, the percentage of success in primary cases varied between 92·01 in Lower Burma, and 98·62 in Bengal, and in re-vaccinations between 20·5 in Berar, and 94·25 in Assam. In the operations performed by the dispensary establishments the ratio of success in primary cases was highest, 96·04 per cent., in Bengal, and lowest, 52·07 in Coorg; and in re-vaccinations it ranged from 19·02 per cent. in the North-Western Provinces and Oudh, to 76·35 in Assam.

The state of infant vaccination is still backward in Bengal, Assam, Madras, Coorg and Upper Burma, but the numbers of infants protected were, in every province except Assam, the Punjab and the Central Provinces, greater than in 1895-96. The total number of children under one year of age, who were successfully vaccinated was 2,903,167, and of those between one year and six years of age 3,237,849, against 2,751,764 and 3,372,925, respectively, in the preceding year. The proportion of persons successfully vaccinated per thousand of population was everywhere greater than in 1895-96, except in the Punjab, the Central Provinces, Bombay and Coorg.

The total cost of the special vaccination establishments in the different provinces amounted to ₹11,41,219, as compared with ₹11,31,983 in 1895-96; and the average cost of each successful case ranged from one anna and five pies in Bengal, to six annas and four pies in Bombay.

The following comparative statement shows in outline the work of the Vaccination Departments during 1895-96 and 1896-97 :—

Comparative statement of vaccination in the different Provinces of India, excluding Ajmere-Merwara, in 1895-96 and 1896-97, together with the death-rates from Small-pox during 1895 and 1896.

PROVINCE.		Population.	NUMBER OF VACCINATIONS PERFORMED.			PERCENTAGE OF SUCCESSFUL CASES.		Persons successfully vaccinated per mille of population.	Ratio of deaths from small-pox per 1,000 of population during the calendar years 1895 and 1896.	Average number of vaccinators employed in Department.*	Average number of operations per vaccinator.*
			Primary.	Re-vaccinations.	TOTAL.	Primary.	Re-vaccinations.				
Bengal . . .	1895-96	70,761,383	2,227,932	49,149	2,277,081	97'84	41'85	31'09	'18	3,380	639
	1896-97	71,053,516	2,223,128	70,527	2,293,655	97'92	52'60	31'16	'18	3,478	622
Assam . . .	1895-96	5,634,258	237,119	7,149	244,268	97'63	87'62	42'20	0'77	228	1,025
	1896-97	5,634,258	250,897	7,525	258,422	97'47	93'10	44'65	1'09	227	1,103
North-Western Provinces and Oudh	1895-96	47,146,033	1,437,790	61,463	1,499,253	90'89	59'19	28'49	'04	854	1,754
	1896-97	47,146,033	1,443,731	84,747	1,528,478	90'72	61'89	28'89	'91	878	2,740
Punjab . . .	1895-96	20,724,940	693,744	229,431	923,175	93'10	56'72	37'44	0'41	300	3,066
	1896-97	20,724,940	673,078	229,335	902,413	93'22	59'76	36'89	2'19	303	2,959
Central Provinces	1895-96	12,173,345	397,261	68,214	465,475	96'22	81'97	35'99	0'70	257	1,740
	1896-97	12,228,289	367,821	45,988	413,809	95'99	77'48	31'79	0'82	260	1,519
Berar . . .	1895-96	2,897,040	92,694	13,911	106,605	95'92	23'43	31'81	'2	44	2,423
	1896-97	2,897,040	98,594	21,717	120,311	96'89	20'55	34'51	'3	44	2,729
Lower Burma . .	1895-96	4,658,627	216,759	28,306	245,065	91'22	45'74	45'22	'34	123	1,974
	1896-97	4,658,627	268,881	24,011	292,892	92'03	57'15	56'06	'37	110	2,622
Upper Burma . .	1895-96	3,488,228	118,543	2,135	120,678	92'63	67'73	31'89	...	54	2,143
	1896-97	3,488,228	127,251	3,105	130,356	93'22	64'67	34'58	...	51	2,480
Madras . . .	1895-96	35,651,577	1,120,625	77,546	1,198,171	91'22	75'24	30'31	0'1	842	1,383
	1896-97	35,651,577	1,173,131	74,589	1,247,720	90'56	74'73	31'36	0'3	834	1,465
Bombay . . .	1895-96	22,701,942	730,108	75,216	805,324	93'09	57'80	31'85	0'12	434	1,854
	1896-97	22,701,942	734,237	70,750	804,987	92'18	58'86	31'65	0'34	437	1,834
Coorg . . .	1895-96	173,055	9,173	1,840	11,013	94'05	81'52	58'52	'04	9	1,157
	1896-97	173,055	9,080	1,431	10,511	95'02	82'95	56'72	0'10	9	1,112
TOTAL	1895-96	226,010,428	7,281,748	614,360	7,896,108	94'12	60'26	31'96	'20†	...	...
	1896-97	226,357,505	7,369,829	633,725	8,003,554	94'12	61'26	32'36	'62†	...	...

* Refers to Special Vaccination Establishment only.

† Calculated on figures taken from Sanitary Reports excluding Upper Burma.

189. In the paragraphs dealing with the various provinces details will be found regarding the different kinds of vaccine material in use. It will be observed that bovine vaccination is making steady progress. The calf lymph is used either direct from the vaccinifer or kept without admixture for a very short time before use. For preserving stocks and for the distribution of vaccine, the lymph is made into pastes with glycerine, or lanoline, or vaseline. The vaseline paste, to which special attention was directed in last year's report, was introduced into the Punjab by Drs. Roe and Bamber, but its use has not proved quite so successful as was expected. It may be noted that a vaseline preparation was tried and discarded by Dr. Little in Berar so far back as 1889.

In connection with the preservation of calf lymph, reference must be made:

to a very important recently published article * by Drs. S. Monckton Copeman and F. R. Blaxall.

In 1891 Dr. Copeman presented a paper to the International Congress of Hygiene, in which he called attention to the purification from extraneous organisms that vaccine lymph underwent after storage for several weeks with a mixture of chemically pure glycerine and distilled water. Since then several observers have confirmed this result. In accordance with a suggestion contained in Section 448 of the Report by the Royal Commission on Vaccination, Dr. Copeman made arrangements with Dr. Blaxall to carry out a series of experiments to elucidate more fully the comparative merits of the glycerine method and other methods for the purification and preservation of animal lymph. Dr. Blaxall investigated the action on vaccine material of glycerine, lanoline and vaseline, and found that, while extraneous microbes were killed after storage of the lymph with glycerine, their numbers were largely increased after storage with lanoline and vaseline. He found further that lymph taken from calves that had been vaccinated with vaccine rendered free from extraneous microbes by glycerine storage, was often remarkably free from extraneous micro-organisms. In his experiments Dr. Blaxall made use of Price's 'Pure Glycerine' of a specific gravity of 1.260 : it was thoroughly mixed with sterilized distilled water to 50 per cent., by weight, and the mixture was sterilized. Four parts by weight of the sterilized mixture were added to one part of the vaccine material and stored for a month, when it was found to be free from extraneous organisms.

In commenting on the experiments, Dr. Copeman lays stress on certain precautions that should be taken in the preparation of the glycerine emulsion. Chemically pure glycerine should be used and should be mixed with distilled water. The mixture should be sterilized before being added to the vaccine material, and it should be added in a definite proportion. Dr. Blaxall used 4 to 1, but a much higher dilution, 15, and even 20, to 1 by weight, was used successfully by the German Commission of 1896. Lastly, the emulsion should be protected from light and air.†

In India we have to contend not only with adventitious organisms, but frequently with the effect of great heat in destroying the specific action of the vaccine. While some prefer glycerine-vaccine to lanoline-lymph-paste, complaints of ill effects produced by the latter have not been numerous, and it would be possible to make too much of the theoretical advantage enjoyed by the glycerine preparation. Still the advantage is undoubted, and it seems very necessary that experiments should be undertaken to ascertain the effects of diluted glycerine on the bacterial flora of Indian lymph, as well as to obtain more precise data than have been recorded hitherto regarding (a) the 'age' at which vesicles yield the most effective lymph in different conditions ; (b) the

* Report of the Medical Officer of the Local Government Board for the year 1895-96, Appendix C.

† Since this was in type the report of the Medical Officer of the Local Government Board for 1896-97 has been received. It contains (No. 6) a report by Drs. Thorne Thorne and Monckton Copeman on glycerinated calf lymph. The reporters visited Paris, Brussels, Berlin, Dresden, Cologne and Geneva. In Paris alone, did they find vaccination carried on under official sanction with crude calf lymph, and even there the process was limited to vaccination direct from calf-to-arm,—and this only to convince certain classes that the lymph used was derived from the calf ; all lymph stored for distribution being glycerinated. In Germany they were informed that the system of vaccinating direct from the calf had come to be abandoned as completely as from arm-to-arm ; the use of glycerinated calf lymph having become general throughout the Empire.

In the French army from the 1st November 1897, the exclusive use of animal lymph has been prescribed, and it is to be supplied from five dépôts in Paris, Lyons, Chalons, Bordeaux and Algiers. It is mixed with glycerine. *Hygienische Rundschau* No. 1, 1898, p. 48.

proportions of glycerine and water and lymph which give the best result ; and (c) the effect of heat on the keeping qualities of the emulsion.

In the margins of the provincial paragraphs, statements are given which show for a number of years the ratios, per thousand of population, of persons successfully vaccinated, and the millesimal death-rates from small-pox.

190. During the year 1896-97, the inspecting staff in Bengal consisted of the Sanitary Commissioner and his three Deputies, 48 Civil Surgeons, 207 Native Inspectors and 13 Head Vaccinators ; and the operating staff of 140 vaccinators paid

YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	0'13	14'79	1887 . .	0'05	30'41
1878 . .	0'20	18'95	1888 . .	0'09	29'51
1879 . .	0'38	39'41	1889 . .	0'13	28'79
1880 . .	0'38	34'81	1890 . .	0'19	28'64
1881 . .	0'40	30'06	1891 . .	0'23	22'63
1882 . .	0'20	28'38	1892 . .	0'31	24'52
1883 . .	0'14	27'38	1893 . .	0'20	24'54
1884 . .	0'28	28'94	1894 . .	0'11	27'98
1885 . .	0'14	25'76	1895 . .	0'18	29'67
1886 . .	0'06	29'68	1896 . .	0'19	29'62

* The ratios of successful vaccinations refer to official year (April to March).

by Government, 60 paid by District Boards, 253 in the employment of municipalities or attached to dispensaries, and 3,278 men who receive no salary but are licensed by Government to vaccinate for fees. As compared with the previous year there was a decrease of 4 Inspectors and of 40 salaried vaccinators, and an increase of 44 licensed vaccinators and 76 apprentices.

The total number of operations performed by all agencies throughout the province was 2,293,655—an increase of 16,574, which is the more satisfactory when the difficulties which the department had to encounter during the year are considered. There was an increase in the work done in 26 districts ; most noticeable in Backergunge, Cuttack, Chittagong, Shahabad and Bankura ; and a decrease in 23. The greatest falling off in the number of operations was in Saran, where high prices of food-grains left the people no money to pay the licensed vaccinators. The same causes were at work in most of the districts, and in some of them the public health was very bad. In Faridpur the decrease as compared with 1895-96 is attributable to the exceptional amount of work done in that year when vaccination was accepted by the Ferazi Mahomedans ; and the apparent falling off in Mymensingh was also due to an unusual number of operations having been performed in the previous year when small-pox was epidemic in the district.

The ratio of success in primary operations was 98'50, or '11 per cent. higher than in 1895-96. The high percentage recorded unfortunately does not represent the facts and is due to the dishonest practice of the vaccinators, who, in many cases, do not enter the names of the children they have operated upon until the vaccination is successful, and frequently reckon as successful, partial, and even absolute, failures. The number of re-vaccinations was 70,527, of which 60'23 per cent. succeeded, the high ratio being accounted for by the fact that in many cases the operation was repeated until it was successful. It is satisfactory to notice that, in spite of the scarcity, the improvement in the protection of infants was more than maintained. Estimating the number of infants available at 40 per thousand of the census population, 17'6 per cent. were successfully vaccinated in 1896-97, against 14'7 in 1895-96, and a mean of 12'8 in the preceding three years.

Of the various agencies employed, only the vaccinators paid by District Boards and Municipalities did more work than in the previous year, the average number of operations performed by each man having been 979 against 881. The licensed vaccinators performed on an average only 621 operations, or 20 less than in 1895-96, but they were, as already explained, specially affected by the poverty of the people. The vaccinators paid by Government vaccinated on an average only 441 against 481 in the previous year, the falling off being due to disappointment felt by them when they learned, towards the end of the year, that the districts in which they worked were to be thrown open to licensed men. The Deputy Sanitary Commissioners verified only 45 per cent. of the total operations, because, during the working season, from October until the end of March, they were employed on plague duty. All other inspecting officers verified larger numbers than in the preceding year ; Civil Surgeons 95.6 per cent. against 88.0 ; District Inspectors 38.47 per cent. against 32.77, and Sub-Inspectors 65.34 per cent. against 62.52. The Civil Surgeon of Dacca verified 13,626 cases, the Civil Surgeon of Darbangha (Dr. E. H. Brown) 13,581, and the Civil Surgeon of Backergunge (Dr. K. P. Gupta) 13,228 ; four Civil Surgeons * inspected more than 10,000 operations, and thirteen others from 5,000 to 10,000. The percentages of operations inspected and found successful were, by Deputy Sanitary Commissioners, 84.71, by Civil Surgeons 95.56, by District Inspectors 96.93, and by Sub-Inspectors 97.14.

Vaccination was carried on as usual with fresh calf lymph, calf lymph mixed with lanoline, and humanized lymph. There was a considerable increase in the amount of lanoline lymph paste manufactured in Calcutta and a slight decrease, owing to difficulty in getting calves, in Darjeeling. The use of calf lymph, fresh and prepared, is extending rapidly—so rapidly that Dr. Dyson believes that its use will soon supersede arm-to-arm vaccination in Bengal. There was also a considerable demand for lanoline lymph from Nepal, and 1,845 grains were supplied.

The total cost of the Department fell from R2,09,481 in 1895-96, to R2,06,204, and the average cost of each successful operation from one anna and six pies, to one anna and five pies.

191. Excluding the staffs of dispensaries and the employés of tea-garden proprietors, there were employed on the work of vaccination in Assam, 18 native Inspectors, 175 vaccinators paid by Government, 28 licensed men and 6 apprentices.

Assam.

YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	0.3	4.51	1887 . .	0.26	24.01
1878 . .	0.3	6.42	1888 . .	0.45	25.38
1879 . .	0.37	8.00	1889 . .	0.49	24.49
1880 . .	0.59	5.27	1890 . .	0.31	26.92
1881 . .	0.69	8.91	1891 . .	0.47	29.93
1882 . .	0.71	10.53	1892 . .	0.29	31.51
1883 . .	1.36	15.19	1893 . .	0.53	28.33
1884 . .	1.06	18.67	1894 . .	0.80	28.09
1885 . .	0.44	22.31	1895 . .	0.77	40.45
1886 . .	0.12	24.04	1896 . .	1.08	43.31

* The ratios of successful vaccinations refer to official year (April to March).

* Including those mentioned.

The total number of operations performed rose from 233,812 in 1895-96, to 250,350, and the average number performed by each vaccinator from 1,025 to 1,103. Of the total, 243,307 were primary vaccinations and 7,043

were re-vaccinations, the percentages of success claimed being 97·58 and 94·25, respectively, as compared with 97·74 and 87·98 in the previous year. The ratio of success in primary operations, although slightly lower than in 1895-96, is still very high. It has been ascertained by special enquiries made by Civil Surgeons that vaccinators are not in the habit of excluding unsuccessful cases from their returns, and the Sanitary Commissioner records it as his opinion that the high rate of success is due to the excellent quality of the lymph supplied from the depot at Shillong. The very high and increasing ratio of success in re-vaccinations, regarding which no attempt at explanation is made, would itself cast doubt upon the accuracy of the reported results even if an examination of the district returns revealed no suspicious figures. For instance, in the district of Nowgong, there were 12,970 primary operations performed by the special staff, and every single operation is stated to have been successful! Even if it is admitted that real insusceptibility to vaccination does not exist,—and the vaccinators of the Local Government Board did not meet with a single instance during fifteen years in upwards of 95,000 consecutive primary vaccinations,—still, in the absence of the highest skill, “insusceptibility” does occur. In England in 1893, the returns from the provinces shewed 3·4 per thousand of the children born to be insusceptible and the figure in the metropolitan returns was 5·3. Moreover, in Nowgong itself, of 237 primary operations performed by the dispensary staff, only 91·56 per cent. succeeded.

There was again a marked diminution in the number of operations performed by Civil Surgeons and dispensary staffs; the numbers have fallen from 12,302 in 1894-95 to 10,456 in 1895-96 and to 8,072 in 1896-97. Of these, 7,590 were primary operations and 482 re-vaccinations, with ratios of success of 94·26 and 76·35 per cent., respectively, as compared with 95·08 and 82·26 in 1895-96. By the tea-garden agencies 16,274 operations, all of which were primary, were performed, and 82·79 per cent. proved successful. In certain gardens at Mazdu, Ghilacherra and Jagcherra in the Sylhet District, the results were most unsatisfactory, for out of 2,398 vaccinations performed during the year only 103 succeeded.

The number of infants protected was 20·4 per cent. of the total number of births, estimated at 40 per mille of the census population, against 20·9 in 1895-96, and 17·6, the mean of the previous three years.

Of the total number of operations performed, the results of 7·98 per cent. were inspected by Civil Surgeons who found 98·38 of the cases successful; 60·90 per cent. were verified by Native Inspectors and 97·68 found successful. In ten towns, with an aggregate population of 66,313, where vaccination is compulsory under the law, 4,222 operations were performed, of which 3,685 succeeded; 618 notices were issued under the Act, but not a single person was prosecuted.

Inoculation is still practised in Sylhet, Silchar and Lakhimpur and in the Garo Hills. The Civil Surgeon of Sylhet reported “that there was reason to believe that an outbreak of small-pox in Burunga village in the North Sylhet sub-division was due to inoculation.”

The working of the Bovine vaccine depot at Shillong was satisfactory, and the lymph supplied from it during the year was reported by all Civil Surgeons to be excellent. Certain experiments were made by six Civil Surgeons with calf lymph mixed with glycerine and with lanoline lymph paste. The results obtained with the two preparations were practically the same. The Sanitary

Commissioner, however, prefers the glycerinated lymph as it keeps better; not on account of any quality inherent in the preparation, but because it is distributed and stored in hermetically sealed tubes.

The total cost of the department, which was R19,942, in 1895-96, rose to R21,724, but the cost of each successful case fell from one anna and seven pies, to one anna and six pies.

192. The supervising staff consisted of two Deputy Sanitary Commissioners, 48 Civil Surgeons and 49 Assistant Superintendents, and the average number of operators was 878. In spite of scarcity, of the cessation of the operating season fifteen days earlier than

YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	0.84	19.40†	1887 . .	0.19	14.93
1878 . .	3.99	14.74	1888 . .	0.56	15.14
1879 . .	1.72	12.42	1889 . .	1.09	16.09
1880 . .	0.19	12.93	1890 . .	1.26	19.48
1881 . .	0.39	15.59	1891 . .	0.56	19.10
1882 . .	0.60	13.69	1892 . .	0.16	20.34
1883 . .	3.14	12.94	1893 . .	0.13	25.38
1884 . .	4.59	12.88	1894 . .	0.09	26.81
1885 . .	0.33	13.50	1895 . .	0.04	28.47
1886 . .	0.24	14.05	1896 . .	0.91	28.87

* The ratios of successful vaccinations refer to official year (April to March).
† Excluding Oudh.

in past years, and of the employment of a very considerable number of vaccinators at relief works in connection with cholera, and on plague duty, the total number of operations rose from 1,497,899 in 1895-96, to

1,527,308. Of these, 1,442,743 were primary operations and 94.65 per cent. succeeded; of the 84,565 re-vaccinations, 68.77 succeeded. The number of vaccinations per man fell from 1,754 to 1,739. In addition to the work of the regular staff, 988 primary operations and 185 re-vaccinations, of which 92.82 per cent. of the former and 19.02 per cent. of the latter proved successful, were performed at dispensaries. The number of infants protected during the year was again higher than in the preceding year, and rose from 570,227 in 1895-96, to 578,390.

The interest taken in vaccination in the different municipalities appears to vary considerably, but in many instances the Civil Surgeons, who are Superintendents of Vaccination in the municipalities, were occupied with other important work.

The number of inspections made by supervising officers was somewhat less than in the preceding year; the percentage of the total verified by Deputy Sanitary Commissioners and Civil Surgeons was 9.05, against 9.68 in 1895-96; and by Assistant Superintendents 27.77 per cent. as compared with 29.83. The percentage found by the former to be successful was 94.01, and by the latter 93.17.

During the year, the question of the entertainment of estate vaccinators was taken up. It was arranged that each estate large enough to afford employment for a vaccinator should pay for one; smaller estates, in a position afford it, to join with one or more others to pay for a vaccinator or to give contributions in cash to the cost of district vaccinators.

The supply of lymph from the hills was sufficient and satisfactory.

The total cost of the department fell from R1,47,963 to R1,44,646, and the cost of each successful case from one anna and nine pies, to one anna and eight pies.

193. The supervising staff comprised one Deputy Sanitary Commissioner, six Divisional Inspectors and 34 Native Supervisors. Besides these, Civil Surgeons exercised general supervision in their districts and carried on inspections during their

YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	0.70	23.70	1887 . .	0.87	32.36
1878 . .	2.30	21.23	1888 . .	0.90	40.84
1879 . .	2.83	17.34	1889 . .	0.42	40.13
1880 . .	0.52	21.41	1890 . .	0.47	37.15
1881 . .	0.38	35.62	1891 . .	0.17	33.24
1882 . .	0.34	25.15	1892 . .	0.54	33.25
1883 . .	0.64	31.08	1893 . .	0.20	37.72
1884 . .	0.87	28.68	1894 . .	0.30	35.48
1885 . .	0.40	29.93	1895 . .	0.41	37.44
1886 . .	0.57	30.52	1896 . .	2.19	36.65

* The ratios of successful vaccinations refer to official year (April to March).

tours.

The average number of vaccinators, including the special staff and men entertained by Cantonment Committees, was 303, or three more than in 1895-96; but, while the number

of operators was slightly increased, the number of operations performed was much less than in the previous year—the falling off amounting to 20,666 primary operations and 96 re-vaccinations. The circumstances brought forward by the Sanitary Commissioner as leading to the diminution of work done are not considered by the Local Government to be the real causes. Stricter supervision on the part of inspecting officers may, however, have something to do with it, for the decrease in work is due entirely to a diminished outturn by the district staff. They performed 596,686 primary operations, 28,210 less than in 1895-96, and 188,777 re-vaccinations, or 16,055 fewer than in the previous year. Meanwhile the special staff performed 67,780 primary operations, or 6,072 more than in the preceding year, while the number of re-vaccinations performed by them was 34,113, or almost double the figure of 1895-96. The dispensary establishments vaccinated 3,737 persons primarily, and re-vaccinated 2,227, against 2,282 and 987, respectively, in the preceding year. The cantonment vaccinators performed 4,875 primary operations and 4,218 re-vaccinations against 4,858 and 6,015, respectively. The percentage of success in primary operations attained by the district staff was 93.97 against 93.36 in the previous year; by the special staff 86.93 against 90.29; by dispensary establishments 89.11 per cent. against 93.38; and by cantonment vaccinators 91.92 against 94.77. The percentage of success in re-vaccinations attained by the district staff was 59.19, and by the special staff 61.84.

Among Native States, Patiala headed the list with 92,509 operations, but here again there was a falling off of 6,336 in the total performed, although the ratios of success, 95.46 in primary cases and 47.63 in re-vaccinations, were considerably higher than in the previous year.

The number of infants protected was 58.5 per cent. of the estimated number of births, against 58.8 per cent. in 1895-96. Civil Surgeons inspected 9.86 of the primary operations and 4.98 per cent. of the re-vaccinations; native Supervisors 57.43 per cent. of the primary operations and 31.01 per cent. of the re-vaccinations; Divisional Inspectors 15.56 and 9.30 per cent., respectively. The percentages of success found by the various inspecting officers were in almost all instances, except in the comparatively small number of re-vaccinations verified by the Divisional Inspectors, much higher than those claimed by the vaccinators.

The vast majority of the operations were performed with calf lymph without admixture, and the ratio of success attained in primary operations was very high,—99·1 per cent. Humanized lymph was used in 42,825 primary operations, and 98·8 were successful. Vaseline lymph was used in 70,199 primary cases and only 92·6 succeeded. But although vaseline lymph was less efficacious in primary cases, it was most efficient in the large number of 22,009 re-vaccinations performed, of which no less than 81·0 per cent. succeeded, against 75·2 per cent. of re-vaccinations with fresh calf lymph, and 71·0 per cent. with humanized lymph.

Vaseline lymph was on its trial during the year, and the officiating Deputy Sanitary Commissioner in his report states that the results obtained with it fully justify the hopes entertained of it. It seems, however, impossible to agree with this opinion, for not only was the percentage of success attained in primary cases lower than where other kinds of lymph were used, but the marks resulting from the vaccination were not satisfactory. The fact that the marks are not pitted probably signifies only that the inflammation was so great that the septa were broken down; but a high degree of inflammation, even if it does not interfere with the efficacy of the prophylactic, is very undesirable in itself. Moreover, it will be remembered that the mortality of persons attacked by small-pox who have good marks of vaccination is much less than half that of persons on whom the marks are, from whatever cause, imperfect. While it is, of course, common enough for the patient to develop a nasty sore from the introduction of extraneous organisms when scratching, it appears that the vaseline vaccine is highly putrescible, for in accounting for numerous failures it is stated that "vaseline lymph is a putrescible substance and unless all instruments introduced into the tube are properly sterilized each time, decomposition is readily set up, and the lymph becomes bad".

The cost of the Department was higher than in 1895-96—R1,02,179 as compared with R1,00,502, and the average cost of each successful operation rose from two annas and one pie, to two annas and two pies.

194. In the figures from the Central Provinces the feudatory states of Bamra and Sonepur are excluded, but particulars regarding vaccination in the State of Bastar have been included for the first time. The supervising staff, besides the Sanitary

Commissioner, consisted of 19 Civil Surgeons and 28 native Superintendents, and the average number of vaccinators employed was 260, including 51 in the feudatory states. The total number of operations performed was 397,036—

YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	0·37	37·68	1887 . .	0·38	36·49
1878 . .	2·18	37·41	1888 . .	1·22	37·51
1879 . .	3·44	34·89	1889 . .	1·99	34·87
1880 . .	0·69	38·45	1890 . .	0·26	37·94
1881 . .	0·24	47·64	1891 . .	0·08	38·25
1882 . .	0·45	36·48	1892 . .	0·10	34·25
1883 . .	0·53	36·37	1893 . .	0·17	33·78
1884 . .	0·55	36·01	1894 . .	0·16	36·58
1885 . .	0·38	32·15	1895 . .	0·70	34·83
1886 . .	0·31	34·32	1896 . .	0·82	30·56

* The ratios of successful vaccinations refer to official year (April to March).

a decrease of 52,684 as compared with the previous year. The falling off was common to British territory and to the feudatory states; and to primary operations decrease 30,762, and to re-vaccinations, decrease 21,922. Many causes contri-

buted to hamper the work of vaccination in the province: (*a*) a diminished birth-rate consequent on the scarcity from which the northern districts have suffered for the past three years; (*b*) the establishment of famine conditions in 14 out of the 18 districts during the cold months, November to March, when the most of the work is done; (*c*) the vagrancy induced by the pressure of distress; and (*d*) the withdrawal of vaccinators from their ordinary work for duty in connection with famine and plague.

The provincial establishment vaccinated 294,101 persons primarily, and 96 per cent. of the operations are said to have succeeded; they re-vaccinated 33,356, and of these operations 71·70 per cent. succeeded. In the feudatory states 97·20 per cent. of 57,051 vaccinations and 96·0 per cent. of 10,452 re-vaccinations are stated to have been successful. In spite of high ratios claimed in the native states, raising the general average percentage of success in primary operations to 96·20 and in re-vaccinations to 77·68, the figures are lower than in 1895-96, when 96·37 of the primary operations and 82·11 of the re-vaccinations succeeded. The average numbers of operations performed per vaccinator were, in British territory, 1,557 and in the feudatory states 1,364, decreases, respectively, of 208 and 267.

By the dispensary staffs, 15,027 primary operations and 1,746 re-vaccinations were performed, and 90·99 and 72·39 per cent., respectively, succeeded.

The percentage of the estimated number of children born who were protected during the year was 47·5, against 49·3 in 1895-96, and 52·9, the mean of the previous three years.

Inspections suffered in the same way as operations from the interference of more urgent work. Civil Surgeons inspected 15·78 per cent. of the total number of operations and native Superintendents 50·24 per cent., against 18·5 and 51·13, respectively, in 1895-96. The percentage of success verified by the former was 92·01, and by the latter 93·46.

During the year, the Inspector General of Education issued a circular letter to the Inspectors of Schools urging them to enforce "with greater strictness" the provisions of Articles 101 (*c*) and 268 of the Educational Code, and to ascertain whether scholars have been protected or not on the occasions of examinations in gymnastics, etc., and when passing them for grants.

The bulk of the vaccination was carried on by means of animal lymph against the use of which there is said to be no prejudice worth noticing. Altogether 9,844 calves were operated on; of these, in 711 the vaccination failed to take, and 209 had to be rejected on account of excessive inflammation or suppuration of vesicles—a total failure of nearly one in ten. From the lymph obtained from the remainder, 240,217 children were vaccinated, and 94 per cent. of the operations succeeded. The cost of the Department, including the expenditure in the feudatory states, amounted to ₹46,707, or ₹529 more than in the previous year, and the average cost of each successful operation rose from one anna and nine pies in 1895-96, to two annas.

195. The strength of the Department remained unchanged and consisted of the Sanitary Commissioner, seven Native Supervisors and 44 vaccinators. The total number of operations performed was 120,111, a number only twice exceeded in the last twelve

Berar.

years. The number of operations performed by each vaccinator rose from

YEAR.	Death-rate from small- pox per 1,000 of popula- tion.	Number successfully vaccinated per 1,000 of population.*	YEAR.	Death-rate from small- pox per 1,000 of popula- tion.	Number successfully vaccinated per 1,000 of population.*
1877 . .	2'9	35'6	1887 . .	0'1	35'2
1878 . .	2'7	25'8	1888 . .	0'3	36'6
1879 . .	0'03	28'30	1889 . .	0'7	35'40
1880 . .	0'02	31'70	1890 . .	0'1	36'8
1881 . .	0'1	30'8	1891 . .	0'01	36'0
1882 . .	0'1	36'1	1892 . .	0'02	37'
1883 . .	1'5	30'33	1893 . .	0'06	35'0
1884 . .	0'02	37'0	1894 . .	0'3	32'2
1885 . .	0'09	36'2	1895 . .	0'2	31'8
1886 . .	0'04	35'6	1896 . .	0'28	34'5

* The ratios of successful vaccinations refer to official year (April to March).

2,423 in 1895-96, to 2,729 in the year under report. The number of primary operations was 98,594 and of re-vaccinations 21,717, and success was obtained in 96'8 and 20'5 per cent. of the cases, respectively, as compared with 95'9 and 23'4 in the previous year.

The percentage protected of the estimated number of infants born was 66'8, against 58'2 in 1895-96, and 60'9, the mean of the preceding three years.

Inspections were made at the rate of 1'6 per cent. by the Sanitary Commissioner and 55'8 per cent. by native Superintendents, the ratios of success verified being 97'0 and 95'2 per cent., as compared with 96'8 per cent. reported by the vaccinators. Dr. Little explains that he finds a higher ratio of success than the Superintendents, because most of the cases which the latter discovered to be unsuccessful have been re-vaccinated before he sees them, and suggests, as an explanation of the ratio of success discovered by Inspectors being higher than that claimed by operators—a phenomenon observable in the returns of the Basim district of Berar, and in other provinces besides Berar,—that the vaccinators calculate on the total number of operations counting unknown cases as failures, whereas the results of all the cases seen by the inspecting officers are, of course, known; the excluded percentage of success among unknown cases accounting for the difference.

The Compulsory Vaccination Act was introduced into the town of Karinja during the year and is now in force in all the Municipalities.

The use of animal lymph is now universal throughout Berar, to the entire exclusion of the arm-to-arm method. Dr. Little gives an account of the methods adopted by him, quoted, not only because of the interest of the passage, but because of the success which has attended the work in Berar.

Since I first entered upon the duties of the Sanitary Commissioner's office in October 1878, animal lymph obtained from the cow has been more or less used in the province. It was first tried for the purpose of renewing our supply and starting the season's operations, and we were thus able to dispense with the annual supplies of English lymph furnished by Government, for this purpose. The procedure in this respect followed in Berar was brought to the notice of other Governments and Administrations—*vide* paragraph 4 of Home Department No. 68, dated 8th March 1882.

After a time, when Superintendents and Vaccinators became more skilled and experienced in animal vaccination, the work of the province came to be carried on partly with animal and partly with humanized lymph until 1890, when a scare was raised as to the possibility of transmitting leprosy through the medium of humanized lymph. Arm-to-arm vaccination was then completely abandoned, and the work carried on entirely with lymph propagated from the cow or buffalo. The people of the province were by this time quite accustomed to the idea of cow vaccination which had been thus gradually and quietly introduced and there was no difficulty experienced in substituting animal for humanized lymph; indeed, native feeling had come to prefer the animal lymph, for they were quick to perceive that their children suffered less when cow lymph was used; that it either took

or failed without subsequent ulceration, whereas the arm-to-arm method in the hands of a careless vaccinator not infrequently resulted in severe ulceration and inflammation of the child's arm. Over and over again have the villagers told me this and personally I seldom or ever see now the ulcerated and inflamed arms which were but too common under the old arm-to-arm system as practised by uneducated and unprofessional men at a distance from immediate supervision.

Another point in favour of animal lymph in public estimation was that calf vaccination did away with the necessity for a child being taken from one village to another for the purpose of affording a lymph supply, or for the child of a high caste man being vaccinated from one of low caste, both procedures being unpopular and often strongly objected to.

In regard to religious prejudice, none was met with, though it is more than probable that had the villagers not been gradually accustomed to see calves and buffaloes vaccinated until it had become quite a commonplace procedure, and had they not had time to realize the advantages to themselves accruing from the use of animal lymph, I have no doubt objection would have been raised on one ground or another.

When the system of vaccination direct from the calf to the exclusion of the arm-to-arm method was introduced, it was anticipated there would be some trouble in the procuring and feeding of the calves; but this has not proved to be the case, save in municipalities, where, owing to the difficulty of procuring animals, the use of lanoline lymph has been recommended.

Berar being entirely an agricultural province with large herds of cattle in most villages, there is no difficulty, as a rule, in obtaining calves for vaccination purposes. The village patel supplies the vaccinator on loan with the animals required, receiving a receipt for the same, he, in his turn, passing a receipt to the vaccinator when the calf is returned to him. Each vaccinator has a circle assigned to him averaging some 60,000 inhabitants, and is required to reside permanently in his circle. This circle is sub-divided for vaccination purposes into smaller circles, each of which has to be taken up systematically in rotation and protected, as far as possible, at the rate of 40 per 1,000 of the population. Before leaving one sub-division and going on to another, the vaccinator has to report to his Superintendent and obtain his permission, which is not granted if the Superintendent considers the rate of protection afforded insufficient. Under this arrangement District Superintendents have systematic control over their men, and the vaccinator, or "*Devi Doctor*" as he is called, comes to be well known to the people amongst whom he resides, and, if he is a good man, soon gains their confidence and respect.

At the close of the monsoon, generally about the end of September, each vaccinator is furnished with a small quantity of lanoline paste lymph to start his supply, which is allowed to die out during the rains. With the paste a few children are vaccinated, and when a successful result has been obtained, a calf is inoculated from a child's arm, and vaccination then kept up from calf to calf or renewed from a healthy child should it show signs of degenerating. The method of itineration is as follows. On the result day, in a certain village, the vaccinator protects, as far as possible, all the available children and operates upon one or more calves; these he distributes to the village or villages he may have arranged to work in next, usually situated not more than three or four miles distant, leaving the animal in charge of the patel, who tells off a *watandar dher** to look after it, and to supply it with grass and water. Only weaned animals are used for vaccination purposes. The vaccinator having affixed a bamboo collar to its neck to prevent it licking itself, goes off to another village, where he may have a result to record, or another calf ready to yield lymph for vaccination. On the fifth day, or 96 hours as near as possible from date of operation, he returns to inspect the calf, and if the result is successful, which is usually the case, he has the children collected and proceeds to vaccinate them, first cleansing the shaven part of the calf with warm water as well as the children's arms—at least he should do so—though this part of the procedure is, I am afraid, often neglected. Sometimes, when villages are close together, a calf can be taken from one to the other on the result day; but if taken any distance, the vesicles get rubbed.

In this way, some vaccinators in the height of the working season have a calf result every day of the week, or at least one every other day, which can generally be managed by little arrangement.

It will thus be seen that nothing is paid by the department for either the hire or feed of the calves, and no difficulty up to now has, as a rule, been experienced in procuring any number of animals save in municipalities, where the work will in future be carried on with lanoline paste lymph.

* Hereditary village Servant.

The total cost of the department was R17,573 as compared with R17,724 in the previous year, and the cost of each successful case fell from three annas and one pie, to two annas and nine pies.

196. The supervising staff was made up of one Deputy Sanitary Commissioner and 59 Deputy Inspectors, and Civil Surgeons carried on inspections in their districts. The average number of vaccinators was 834. Although the number of operators was 8 less

YEAR.	Death-rate from small-pox per 1,000 of population.*	Number successfully vaccinated per 1,000 of population.*	YEAR.	Death-rate from small-pox per 1,000 of population.*	Number successfully vaccinated per 1,000 of population.*
1877 . .	3'02	21'	1887 . .	0'7	22'1
1878 . .	1'9	14'	1888 . .	0'8	24'4
1879 . .	0'6	13'	1889 . .	1'0	26'1
1880 . .	0'5	18'	1890 . .	1'0	27'9
1881 . .	0'5	16'7	1891 . .	1'4†	30'2
1882 . .	0'6	19'22	1892 . .	1'3	28'7
1883 . .	0'3	21'9	1893 . .	0'8	30'0
1884 . .	2'1	23'0	1894 . .	0'3	29'7
1885 . .	1'2	22'3	1895 . .	0'1	29'6
1886 . .	0'6	21'1	1896 . .	0'29	31'1

* The ratios of successful vaccinations refer to official year (April to March).
† Calculated on the census figures of 1881.

than in the previous year, the number of operations performed rose from 1,178,970 in 1895-96 to 1,234,350 in 1896-97, and the number of vaccinations performed by each man from 1,383 to 1,465. Of the total number of operations, 1,161,127 were primary and 73,223 were re-vaccinations, the percentages of success reported being 92'6 and 80'2, respectively, as compared with 87 and 80'5 in the preceding year. In consequence of its having been made optional for the medical officers attached to dispensaries to carry on vaccination, there has been a progressive decline of late years in the numbers vaccinated by the dispensary staffs. The number vaccinated by them in 1894-95 was 26,410; in 1895-96 the number fell to 19,201; and in the year under report there was a further fall to 13,370. Of these 12,004 were primary vaccinations, successful at the rate of 88 per cent.,—a ratio, in the opinion of the Deputy Sanitary Commissioner, approximating to the degree of success generally attainable in the presidency; and 1,366 were re-vaccinations, of which 74'8 per cent. were successful.

The percentage of the estimated number of children protected was 23'2 against 22'0 in the previous year, and 18'6, the mean of the previous three years.

Of the total number of vaccinations performed, 2'5 per cent. were verified by Civil Surgeons and 49'8 per cent. by native Superintendents and others. The ratios of success found by these officers were practically the same as last year,—90'8 and 89'5 per cent., respectively, as compared with 92'0 per cent. reported by vaccinators.

Except in 226 cases vaccinated in Ganjam, with humanized lymph, the vaccine used was derived from the calf and was applied (a) direct, (b) in tubes without admixture, (c) in tubes with glycerine added, and (d) in tubes with lanoline added. In the following table the results obtained with the various vaccines are given :—

	Number of cases.	Percentage of success.
(a) Lymph taken direct from calf to arm . .	287,225	97'2
(b) Lymph in tubes or plates	118,695	94'6
(c) Lymph in tubes with glycerine	649,700	88'9
(d) Lymph in tubes with lanoline	68,471	94'0

The lymph sent out in tubes and plates without admixture was invariably used at once, which accounts for the high ratio of success attained with it.

The cost of the department which in 1895-96 was R2,45,279 rose in 1896-97 to R2,51,506, but the average cost of each successful vaccination fell from three annas and nine pies, to three annas and eight pies.

197. The vaccination staff under the Civil Surgeon of Coorg consisted of one Native Inspector and eight vaccinators. There was a slight falling off in the number of operations as compared with the previous year: 10,006 having been performed against 10,411, and the number of persons vaccinated by each operator fell from 1,157 to 1,112. Of the total, 8,717 were primary operations, and 1,289 were re-vaccinations; the percentages of success attained were 96·81 and 89·76, respectively, as compared with 95·72 and 86·27 in 1895-96. Besides these, 505 operations were performed by the dispensary staff; 52·07 of 363 primary operations and 21·13 per cent. of 142 re-vaccinations were successful. The percentage protected of the estimated number of children born was 18·6, against 17·2 in 1895-96, and 13·3, the mean of the previous three years. Vaccinations were performed with calf lymph. The cost of the establishment rose from R2,600 in 1895-96 to R2,790 in 1896-97, and the cost of each successful case from four annas and one pie, to four annas and eight pies.

198. The supervising staff consisted of five Deputy Sanitary Commissioners, and 45 Inspectors of Sanitation and Vaccination and the average number of vaccinators was 437, inclusive of 78 employed in native state territory. Besides these there were

employed 16 clerks and 512 peons.

The total number of operations was 802,738, against 803,850 in 1895-96, and the average number performed by each operator was 1,834, or 20 less than in the previous year. The decrease is attributed to the

YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	1·69	26·58	1887 . .	0·23	33·54
1878 . .	0·28	22·30	1888 . .	0·22	34·07
1879 . .	0·07	23·15	1889 . .	0·43	34·34
1880 . .	0·06	25·25	1890 . .	0·17	33·59
1881 . .	0·03	27·88	1891 . .	0·08	31·78
1882 . .	0·10	30·18	1892 . .	0·15	30·71
1883 . .	0·81	31·01	1893 . .	0·19	30·10
1884 . .	0·88	30·39	1894 . .	0·17	30·68
1885 . .	0·16	32·45	1895 . .	0·12	31·80
1886 . .	0·05	32·30	1896 . .	0·34	35·34

* The ratios of successful vaccinations refer to official year (April to March).

outbreak of plague in Bombay and to the occurrence of floods in Sind. Of the total number of operations 732,893 were primary, of which 92·19 per cent. succeeded, against 93·25 in 1895-96; and 69,845 were re-vaccinations, of which 59·64 per cent. were successful, as compared with 57·59 per cent. in the previous year.

Besides these, 1,344 primary operations, of which 85·67 per cent. succeeded, and 905 re-vaccinations with success in 76·13 per cent., were performed by the establishments of dispensaries. Of the estimated number of children born, 59·1 per cent. were protected, as compared with 58·0 per cent. in the previous year, and 56·2 per cent., the mean of the preceding three years.

The percentages of cases verified by Deputy Sanitary Commissioners and native Inspectors were smaller than in the previous year,—4·74 and 36·42 as compared with 7·03 and 37·67, and the proportions of cases found by them to be successful were also less, 80·90 and 97·10 per cent., against 95·55 and 99·01.

Bovine lymph was exclusively used throughout the year in the city of Bombay ; and elsewhere it was used in selected areas. The total cost of the department rose slightly, from R2,81,408 in 1895-96 to R2,81,867, and the average cost of each successful case from six annas and three pies, to six annas and four pies.

In the native states of Baroda, Cutch, Kathiawar, Palanpur and Idar, 212,474 primary operations and 8,320 re-vaccinations were performed with success, respectively, at the rates of 94·13 and 69·50 per cent. The number of infants protected in these states fell from 162,069 in 1895-96, to 161,514.

199. The vaccination staff consisted of 10 native Superintendents and 110 vaccinators. The number of operations rose from 242,845 in 1895-96, to 288,381, and the average number performed by each man from 1,974 to 2,622. The increase in the work was distributed throughout the province, except in the Arakan Hill Tracts,

YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	0·41	6·66	1887 . .	0·06	16·70
1878 . .	0·47	9·25	1888 . .	0·16	19·79
1879 . .	0·74	11·79	1889 . .	0·77	26·67
1880 . .	1·73	11·00	1890 . .	1·01	24·36
1881 . .	0·48	11·	1891 . .	0·29	21·42
1882 . .	0·21	12·50	1892 . .	0·32	25·79
1883 . .	0·19	16·70	1893 . .	0·68	30·35
1884 . .	1·67	19·95	1894 . .	0·38	35·38
1885 . .	0·58	13·46	1895 . .	0·34	44·89
1886 . .	0·03	14·69	1896 . .	0·37	55·44

* The ratios of successful vaccinations refer to official year (April to March).

to the prohibition by the President of the Municipality of the compulsory vaccination of coolie immigrants who have furnished by far the largest proportion of cases in past years. The President's order resulted from the death from tetanus after vaccination of a gardener in the employment of the German Club. The attack of tetanus from which the gardener died does not appear to have been due to the vaccination, but to his having applied a paste of leaves and earth to the vesicles. The orders issued, however, produced such a feeling of alarm in the popular mind that no adult coolies could be induced to submit to vaccination.

Of 267,146 primary operations and 21,235 re-vaccinations, 92·01 and 58·79 per cent., respectively, succeeded, against 91·21 and 46·01 in the previous year. The establishments attached to dispensaries performed 1,735 primary operations and 2,776 re-vaccinations, of which 94·53 and 44·63 per cent. succeeded. The relatively large number of re-vaccinations was due to the performance of 2,146 in the district of Hanthawaddy, where there was a great deal of small-pox.

The ratio of infants protected was 34·3 per cent. of the estimated number of births, as compared with 22·0 per cent. in 1895-96, and 14·2, the mean of the previous three years. The percentages of the total number of operations verified by Civil Surgeons and native Superintendents were somewhat higher than in the previous year,—15·93 and 24·60, respectively, against 14·61 and 18·13.

The cost of the department rose from R42,713 to R46,836, but the cost of each successful case fell from three annas and three pies in 1895-96, to two annas and eleven pies.

200. The staff consisted of the Civil Surgeons, one native Superintendent and 51 vaccinators. The number of operations performed was 126,464,—a satisfactory increase as compared.

Upper Burma.

with 1895-96, when the figure was 115,703. The average number performed by each vaccinator rose from 2,143 to 2,480. Of 123,520 primary operations and 2,944 re-vaccinations, 93·34 and 64·64 per cent., respectively, were successful, as compared with percentages of 92·67 and 66·65 in the previous year. The staffs of dispensaries were successful in 89·06 per cent. of 3,731 primary operations and in 65·22 per cent. of 161 re-vaccinations. There were 41,295 infants protected during the year as compared with 30,741 in the previous year. The percentage of operations inspected by Civil Surgeons was 33·58, and by the native Superintendent 10·18.

Vaccination in the Shan States continues in a very backward condition; only 4,401 operations were performed by vaccinators and 158 by the dispensary staff,—all primary. The instruction of the *sayas*, or native doctors, was discontinued in the Southern States towards the end of 1896, as it was found impossible to check their work, and a proposal to instruct the same class in the Northern States was rejected, because, as a rule, the *sayas* are lazy and untrustworthy. The entertainment of additional travelling vaccinators in the Southern States has been sanctioned, and an improvement in the results obtained may be anticipated.

Lymph paste was obtained from Bangalore and was manufactured locally; —the pastes made in Rangoon and in Taunggyi being very satisfactory.

The cost of the department rose from R16,798 in 1895-96 to R17,317, but the average cost of each successful case fell from two annas and six pies, to two annas and four pies.

201. The staff consisted of two Superintendents and 13 vaccinators,—one more vaccinator than in 1895-96. The total number of operations rose from 15,978 in the preceding year, to 16,282, but the average number of operations performed by each vaccinator fell from 1,331 to 1,252. Of the total, 15,962 were primary operations and 320

YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	YEAR.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1879 . .	1·00	10·	1888 . .	1·48	22·
1880 . .	1·67	9·	1889 . .	3·66	20·
1881 . .	4·04	11·	1890 . .	·68	26·35
1882 . .	1·56	10·04	1891 . .	1·03	23·75
1883 . .	1·25	10·	1892 . .	3·05	19·99
1884 . .	2·06	8·	1893 . .	·13	22·34
1885 . .	2·83	7·	1894 . .	·81	24·30
1886 . .	2·47	16·	1895 . .	1·39	28·39
1887 . .	·96	22·	1896 . .	7·05	29·51

* The ratios of successful vaccinations refer to official year (April to March).

per cent. in the previous year and an average of 40·5 per cent. in the preceding three years.

The cost of the department rose from R1,397 in 1895-96, to R1,870, and the average cost of each successful case from one anna and five pies, to one anna and ten pies.

202. The list of towns, cantonments and rural tracts in which the Act is in force will be found in Appendix B to this section; those into which it was introduced during the year under report being marked by an asterisk.

203. Statistics regarding vaccination among European and Native troops from 1890-91 to 1896-97 will be found in Appendix A.

Compulsory Vaccination Act.

Vaccination among troops.

Appendix A to Section VII.

STATEMENT NO. I.—*Showing the strength of the Special Vaccination Establishment in each province, and the total number of persons vaccinated by them during the year 1896-97.*

PROVINCE.	Population among whom vaccination was carried on (census of 1891).	Average population per square mile.	STAFF.			TOTAL NUMBER OF PERSONS VACCINATED.			Average number vaccinated by each vaccinator.
			European supervising officers (omitting Civil Surgeons).	Native supervising officers.	Average number of vaccinators employed during the year.	Male.	Female.	TOTAL.	
Bengal	71,053,516	406	3	207	3,478	1,126,865	1,035,488	2,162,353	622
Assam	5,634,258	113	...	18	209	139,698	110,652	250,350	1,103
North-Western Provinces and Oudh	47,146,033	421	2	49	878	821,192	706,116	1,527,308	1,740
Punjab	20,724,940	186	1	40	303	506,002	390,447	896,449	2,959
Central Provinces	12,228,289	128	...	28	260	205,421	191,615	397,036	1,519
Berar	2,897,040	192	...	7	44	68,299	52,012	120,311	2,729
Madras Presidency	35,651,577	261	1	59	834	658,733	575,617	1,234,350	1,465
Coorg	173,055	109	...	1	8	6,939	3,067	10,006	1,112
Bombay Presidency	22,701,942	143	5	45	437	427,480	373,875	802,738*	1,834
Burma { Lower	4,658,627	53	...	10	110	162,157	126,224	288,381	2,622
	Upper	28	...	1	51	63,416	63,048	126,464	2,480
Ajmere-Merwara	542,358	200	1	1	13	8,883	7,399	16,282	1,252

* Including 1,383 secondary vaccinations.

STATEMENT NO. II.—*Showing the proportion of successful cases in primary vaccinations and re-vaccinations performed by the Special Vaccination Establishment in each province during the year 1896-97.*

PROVINCE.	PRIMARY VACCINATION.				RE-VACCINATION.		PERCENTAGE OF SUCCESSFUL CASES.	
	TOTAL.	Successful.			TOTAL.	Successful.	Primary.	Re-vaccination.
		—1	—6	Total of all ages.				
Bengal	2,123,438	470,275	1,360,343	2,083,395	38,915	21,599	98·62	63·64
Assam	243,307	44,472	142,023	237,408	7,043	6,638	97·58	94·25
North-Western Provinces and Oudh	1,442,743	578,055	566,599	1,308,941	84,565	52,421	94·65	68·77
Punjab	669,341	482,534	128,930	624,088	227,108	135,611	93·24	59·71
Central Provinces	352,794	223,165	90,013	339,384	44,242	34,368	96·20	77·68
Berar	98,594	77,490	15,647	95,529	21,717	4,462	96·8	20·5
Madras Presidency	1,161,127	328,955	554,468	1,052,193	73,223	54,834	92·6	80·2
Coorg	8,717	1,270	4,086	8,439	1,289	1,157	96·81	89·76
Bombay Presidency	732,893	536,293	127,812	675,678	69,845	40,959	92·19	59·64
Burma { Lower	267,146	63,484	117,187	245,805	21,235	12,484	92·01	58·79
	Upper	123,520	39,999	115,297	2,944	1,903	93·34	64·64
Ajmere-Merwara	15,962	11,128	4,402	15,764	320	242	96·82	75·62

Appendix A to Section VII—continued.

STATEMENT NO. III.—*Showing the cost of the Special Vaccination Establishment in each province, the cost of each successful case, and the sources from which the expenses were paid during the year 1896-97.*

PROVINCE.	EXPENDITURE.				PAID FROM						Average cost of each successful case.
	Establishment.	Travelling allowances.	Contingencies.	TOTAL.	Imperial funds.	Provincial funds.	Local funds.	Municipalities.	Native States.	TOTAL.	
	₹	₹	₹	₹	₹	₹	₹	₹	₹	₹	₹ a. p.
Bengal . . .	1,34,972	50,148	21,084	2,06,204	...	1,62,592	3,957	37,925	1,730	2,06,204	0 1 5
Assam . . .	17,413	3,217	1,094	21,724	...	8,315	10,983	871	1,555	21,724	0 1 6
North-Western Provinces and Oudh . . .	1,31,327	4,806	8,513	1,44,646	...	97,030	14,799	24,996	7,821	1,44,646	0 1 8
Punjab . . .	88,732	6,424	7,023	1,02,179	...	20,378	57,770	22,742	...	1,02,179*	0 2 2
Central Provinces	40,929	3,860	1,918	46,707	...	3,700	34,186	2,649	6,172	46,707	0 2 0
Berar . . .	17,070	138	365	17,573	...	17,573	...	...	...	17,573	0 2 9
Madras Presidency	1,65,266	34,386	51,854	2,51,506	2,297	21,554	1,92,066	34,616	...	2,51,506†	0 3 8‡
Coorg . . .	1,911	224	655	2,790	...	2,175	...	615	...	2,790	0 4 8
Bombay Presidency . . .	2,27,633	24,403	29,831	2,81,867	...	1,07,395	1,04,483	38,906	31,083	2,81,867	0 6 4
Burma {	Lower	33,949	11,379	1,508	46,836	...	1,054	33,696	12,086	46,836	0 2 11
	Upper	13,189	3,689	439	17,317	10,643	...	6,674	...	17,317	0 2 4
Ajmere-Merwara	1,779	61	30	1,870	771	276	448	375	...	1,870	0 1 10

* Including ₹1,289 from Cantonment Funds.

† Including ₹973 from zemindaries.

‡ Inclusive of the pay and allowances of the Inspector of Vaccination and Deputy Sanitary Commissioner.

STATEMENT NO. IV.—*Showing the vaccinations performed by the Dispensary and other Establishments in each province during the year 1896-97.*

PROVINCE.	Number of vaccinators attached to dispensaries, etc.	Total number of persons vaccinated.	Average number vaccinated by each vaccinator.	PRIMARY VACCINATION.				RE-VACCINATION.		PERCENTAGE OF SUCCESSFUL CASES.	
				TOTAL.	SUCCESSFUL.			TOTAL.	Successful.	Primary.	Re-vaccination.
					—1	—6	Total of all ages.				
Bengal . . .	253	131,302	519	99,690	28,704	52,497	93,420	31,612	15,501	96'04	56'05
Assam . . .	...	8,072	...	7,590	1,393§	3,932§	7,154	482	368	94'26	76'35
North-Western Provinces and Oudh . . .	...	1,170	...	988	335	282	776	182	31	92'82	19'02
Punjab . . .	...	5,964	...	3,737	2,670	619	3,330	2,227	1,437	89'11	64'53
Central Provinces	...	16,773	...	15,027	8,959	3,654	13,673	1,746	1,264	90'99	72'39
Berar * . . .	...	...	...	...	...	...	...	...	...	...	...
Madras Presidency	...	13,370	...	12,004	1,864	5,189	10,267	1,366	909	88'0	74'8
Coorg . . .	...	505	63	363	19	27	189	142	30	52'07	21'13
Bombay Presidency . . .	...	2,249†	...	1,344	373	317	1,148	905	689	85'67	76'13
Burma {	Lower .	4,511	...	1,735	434	639	1,641	2,776	1,239	94'58	44'63
	Upper .	3,892	...	3,731	1,296	1,231	3,323	161	105	89'06	65'22
Ajmere-Merwara†	...	...	...	...	...	...	...	...	...	...	...

§ Excluding results in Darrang District.

* Dispensary vaccination transferred to Special Establishment since July 1892.

† Including 4 secondary vaccinations.

‡ No dispensary vaccination.

Appendix A to Section VII —continued.

STATEMENT NO. V.—Showing the total Vaccinations performed by the Special Vaccination and Dispensary Establishments combined in each province during the year 1895-97.

PROVINCE.	TOTAL NUMBER SUCCESSFULLY VACCINATED			Ratio of successful vaccinations per 1,000 of population.*	AVERAGE ANNUAL SUCCESSFUL VACCINATIONS DURING PREVIOUS FIVE YEARS.		AVERAGE ANNUAL DEATHS FROM SMALL-POX DURING PREVIOUS FIVE YEARS.	
	By Vaccine Department.	By Dispensaries.	TOTAL.		Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Bengal	2,104,994	108,921	2,213,915	29'62	1,814,431	25'53	13,791	'19
Assam	244,046	7,522	251,568	43'31	180,334	32'01	2,862	0'55§
North-Western Provinces and Oudh	1,361,362	807	1,362,169	28'87	1,127,566	23'92	9,293	'20
Punjab	759,699	4,767	764,466	36'65	736,030	35'51	8,846	0'43
Central Provinces	373,752	14,937	388,689	30'56	427,258	34'94	2,725	'26
Berar	99,991	†	99,991	34'5	100,818	34'8	377	'13
Madras Presidency	1,107,027	11,176	1,118,203	31'1	1,031,955	28'9	Not stated.	Not stated.
Coorg	9,596	219	9,815	55'45	9,519	55'00	311	1'80
Bombay Presidency	716,637	1,837	718,474	35'34	709,050	31'23	3,008	'14
Burma { Lower	258,289	2,880	261,169	55'44	147,050	31'56	1,829	'40
Upper	117,200	3,428	120,628	33'60	81,480	23'51	...	...
Ajmere-Merwara	16,006	‡	16,006	29'51	12,822	23'65	696	1'28

* Calculated on the work done by the Special Establishment only.
§ Exclusive of Naga Hills, Garo Hills, North Lushai and Manipur.
† Dispensary vaccination transferred to Special Establishment since July 1892.
‡ No dispensary vaccination.

STATEMENT NO. VI.—Showing the operations performed by the Special Vaccination and Dispensary Establishments combined with the estimated births in each province during the year 1896-97.

PROVINCE.	Annual births estimated at 40 per 1,000 of population.	NUMBER OF CHILDREN SUCCESSFULLY VACCINATED UNDER ONE YEAR			Percentage of annual estimated births successfully vaccinated.	NUMBER OF CHILDREN SUCCESSFULLY VACCINATED ABOVE ONE AND UNDER SIX YEARS		
		By Vaccine Department.	By Dispensaries.	TOTAL.		By Vaccine Department.	By Dispensaries.	TOTAL.
Bengal	2,842,141	470,275	28,704	498,979	17'6	1,361,015	52,770	1,413,785
Assam	225,370	44,472	1,393*	45,865	20'4	142,023	3,932*	145,955
North-Western Provinces and Oudh	1,885,841	578,055	335	578,390	30'7	566,599	282	566,881
Punjab	828,998	482,534	2,670	485,204	58'5	128,930	619	129,549
Central Provinces	489,132	223,165	8,959	232,124	47'5	90,013	3,654	93,667
Berar	115,882	77,490	†	77,490	66'8	15,647	†	15,647
Madras Presidency	1,426,063	328,955	1,864	330,819	23'2	554,468	5,189	559,657
Coorg	6,922	1,270	19	1,289	18'6	4,086	27	4,113
Bombay Presidency	908,078	536,293	373	536,666	59'1	127,812	317	128,129
Burma { Lower	186,345	63,484	434	63,918	34'3	117,187	639	117,826
Upper	139,529	39,999	1,296	41,295	29'6	57,952	1,231	59,183
Ajmere-Merwara	21,694	11,128	‡	11,128	51'3	4,402	‡	4,402

* Excluding results in Darrang District.
† Dispensary vaccination transferred to Special Establishment since July 1892.
‡ No dispensary vaccination.

STATEMENT NO. VII.—Comparative statement showing the number of persons primarily vaccinated, and the number of those who were successfully vaccinated in Her Majesty's European and Native Troops in India in each of the undermentioned official years.

PERSONS PRIMARILY VACCINATED.																								
YEARS ENDED 31ST MARCH.																								
	1891.		1892.		1893.		1894.		1895.		1896.		1897.											
	European army.	Native army.	European army.	Native army.	European army.	Native army.	European army.	Native army.	European army.	Native army.	European army.	Native army.	European army.	Native army.										
Bengal	(a) 678	6,999	5,224	5,217	772	567	7,027	5,186	678	608	4,717	840	637	5,668	4,381	519	395	2,995	2,360	417	271	4,275	2,945	
Punjab																{ 267	187	3,777	3,158	337	254	3,914	2,969	
Madras	294	3,827	2,907	2,665	250	165	3,273	2,636	276	205	2,970	259	174	3,118	2,317	251	184	3,758	2,780	201	141	2,821	2,095	
Bombay	186	1,816	1,496	1,571	566	481	1,949	1,607	215	114	1,489	190	107	1,561	1,269	205	134	1,880	1,586	248	137	2,219	1,763	
Central India and Rajputana . . . . .	...	478	472	584	...	...	499	456	...	...	464	439	...	448	419	...	...	726	664	...	...	592	536
Hyderabad Contingent . . . . .	...	1,371	1,162	1,263	...	...	1,180	932	...	...	1,685	1,351	...	904	768	...	...	1,312	1,148	...	...	1,202	1,035
India	1,161	14,491	11,261	11,300	1,588	1,213	13,928	10,817	1,169	927	12,947	10,038	1,289	918	11,699	9,154	1,242	900	14,448	11,696	1,203	803	15,023	11,343

Appendix B to Section VII.

List of towns and rural tracts where the Compulsory Vaccination Act is in force.

Province and district.	Town.	Rural tract.	Province and district.	Town.	Rural tract.
BENGAL.					
Burdwan	1 Burdwan . . .	1 From the river Damodar to Assansol on the Bengal-Nagpur Railway.	Julpaiguri	74 Jalpaiguri.	
	2 Raniganj . . .		Dacca . . .	75 Dacca.	
	3 Katwa . . .		Faridpur . . .	76 Narainganj.	
	4 Dainhat . . .			77 Faridpur.	
Bankura	5 Kalna . . .	2 The store-yard in village Dihika.		78 Madaripur.	
	6 Bankura . . .		Backerganj . . .	79 Barisal.	
Birbhum	7 Vishunpur . . .			80 Jhalokati.	
	8 Sonamukhi . . .			81 Nalchiti.	
	9 Suri . . .	3 The branch line from station Damodar on the Bengal-Nagpur Railway to Sanctoria.		82 Ferozepur.	
	10 Midnapur . . .			83 Patuakhali.	
	11 Ghatal . . .			84 Nasirabad.	
Midnapur	12 Chandrakona . . .			85 Muktagacha.	
	13 Kirpai . . .	4 The Bengal-Nagpur Railway premises at Assansol (Budha).		86 Jamalpur.	
	14 Ramjibunpur . . .		Mymensingh . . .	87 Sherpur.	
	15 Kharar . . .			88 Tangail . . .	
	16 Tamluk . . .			89 Netrokona . . .	
	17 Hooghly and Chinsura.			90 Kishoreganj . . .	
	18 Utterpara.		Tipperah . . .	91 Bazitpur . . .	
	19 Bansberia.		Noakhally . . .	92 Comilla . . .	
Hooghly	20 Serampore.			93 Brahmanbaria . . .	
	21 Baidyabati.			94 Sudharam or Noakhali.	
	22 Bhadreswar.		Chittagong . . .	95 Chittagong . . .	
	23 Kotrung.			96 Cox's Bazar . . .	
	24 Jahanabad.			97 Patna City . . .	
Howrah	25 Howrah.		Patna . . .	98 Dinapur Nizamut	
	26 Bally.			99 Barh . . .	
	27 Cossipur and Chitpur.			100 Bihar . . .	
	28 Maniktola.			101 Gaya . . .	
	29 Baranagar.		Gaya . . .	102 Tikari . . .	
	30 South Suburban.			103 Daudnagar . . .	
	31 Rajpur.			104 Arrah . . .	
	32 Baruipur.			105 Buxar . . .	
	33 Jaynagar.		Shahabad . . .	106 Dumraon . . .	
24 Parganas	34 South Barrackpore.			107 Sasaram.	
	35 North Barrackpore			108 Jagadishpur.	
	36 North Dum-Dum.			109 Bhabhua.	
	37 South Dum-Dum.		Darbhanga . . .	110 Darbhanga.	
	38 Basirhat.			111 Roserha.	
	39 Taki.			112 Madhubani.	
	40 Baduria.		Muzaffarpur . . .	113 Muzaffarpur.	
	41 Barasat.			114 Sitamarhi.	
	42 Naihati.			115 Lalganj.	
	43 Gobardanga.			116 Hajipur.	
	44 Khoolna.		Saran . . .	117 Chapra.	
Khoolna	45 Satkhira.			118 Siwan.	
	46 Chanduria.			119 Revilganj.	
	47 Debhatta.		Champaran . . .	120 Motihari.	
	48 Krishnagar.			121 Bettiah.	
	49 Nadia.			122 Monghyr.	
	50 Kushtia.		Monghyr . . .	123 Jamalpur.	
	51 Kumarkhali.			124 Jamui.	
Nadia	52 Meherpur.		Bhagalpur . . .	125 Bhagalpur.	
	53 Santipur.			126 Colgong.	
	54 Ranaghat.		Purneah . . .	127 Purneah.	
	55 Chakdaha.			128 Kishoreganj.	
	56 Birnagar.		Maldah . . .	129 English Bazar.	
	57 Jessore.			130 Old Maldah . . .	
Jessore	58 Kotchandpur.			131 Deoghar . . .	
	59 Moheshpur.		Sonthal Parganas.	132 Sahibganj . . .	
	60 Berhampur.			133 Dumka . . .	
	61 Lalbag or City Murshidabad.			134 Rajmahal . . .	
Murshidabad	62 Jangipur.		Cuttack . . .	135 Cuttack . . .	
	63 Kandi.			136 Kendrapara . . .	
	64 Dinajpur.		Balasore . . .	137 Jajpur . . .	
Dinajpur	65 Rampur Boalia.		Puri . . .	138 Balasore . . .	
Rajshahi	66 Nattore.			139 Puri . . .	
	67 Rangpur.		Hazaribagh . . .	140 Hazaribagh . . .	
Rangpur	68 Bogra.			141 Chatra . . .	
Bogra	69 Sherpur.		Lohardaga . . .	142 Ranchi . . .	
	70 Pabna.			143 Lohardaga . . .	
Pabna	71 Serajganj.		Palamau . . .	144 Daltonganj . . .	
	72 Darjeeling.			145 Purulia . . .	
Darjeeling	73 Kurseong.		Manbhum . . .	146 Jhalda . . .	
			Singbhum . . .	147 Raghunathpur . . .	
				148 Chaibasa . . .	

VILLAGES OF CHITTAGONG DISTRICT.*

CHOTA NAGPUR DIVISION.

Area situated within the Bengal-Nagpur Railway boundary from mile 421.368 west of Nimdip Nala to mile 620.75 where the line crosses the Damodar river within the jurisdiction of the Commissioner of the Chota Nagpur Division.

* In places marked with an asterisk the Vaccination Act was introduced in 1896.

Appendix B to Section VII — continued.

List of towns and rural tracts where the Compulsory Vaccination Act is in force.

Province and district.	Town.		Rural tract.		Province and district.	Town.		Rural tract.	
Assam.					North-Western Provinces and Oudh—contd.				
Cachar . . .	1	Silchar	None.	Unao . . .	63	Unao	None.
Sylhet . . .	2	Sylhet . . .	...		Rae Bareli . . .	64	Rae Bareli . . .	...
Goalpara . . .	3	Dhubri . . .	...		Sitapur . . .	65	Sitapur . . .	...
Kamrup . . .	4	Goalpara . . .	...			66	Khairabad . . .	...
Lakhimpur . . .	5	Gauhati . . .	...			67	Shahabad . . .	...
	6	Dibrugarh . . .	...			68	Hardoi . . .	...
Sibsagar . . .	7	Sibsagar Station . . .	...		Hardoi . . .	69	Sandi . . .	...
	8	Golaghat Union . . .	...			70	Pihani . . .	...
Khasi and Jaintia Hills.	9	Jorhat Union . . .	...			71	Sandila . . .	...
	10	Shillong . . .	...		Kheri . . .	72	Lakhimpur . . .	...
North-Western Provinces and Oudh.					Cawnpore . . .	73	Muhamdi	None.
Almora . . .	1	Almora . . .	...	None.	Fatehpur . . .	74	Cawnpore . . .	...
Naini Tal . . .	2	Naini Tal . . .	...		Banda . . .	75	Fatehpur . . .	...
	3	Kashipur . . .	...		Allahabad . . .	76	Banda . . .	...
	4	Bijnor . . .	...			77	Allahabad . . .	...
Bijnor . . .	5	Chandpur . . .	...		Jalaun . . .	78	Orai . . .	...
	6	Dhampur . . .	...			79	Kalpi . . .	...
	7	Nagina . . .	...		Jhansi . . .	80	Kunch . . .	...
	8	Najibabad . . .	...			81	Jhansi . . .	...
Moradabad . . .	9	Moradabad . . .	...		Fyzabad . . .	82	Mau Ranipur . . .	...
	10	Chandausi . . .	...			83	Lalitpur . . .	...
	11	Amroha . . .	...			84	Fyzabad-Ajudhia . . .	...
Bareilly . . .	12	Sambhal . . .	...			85	Tanda . . .	...
Pilibhit . . .	13	Bareilly . . .	...			86	Gonda . . .	...
	14	Pilibhit . . .	...		Gonda . . .	87	Nawabganj . . .	...
Shahjahanpur . . .	15	Bisalpur . . .	...			88	Utraula . . .	...
	16	Shahjahanpur . . .	...		Bahraich . . .	89	Balrampur . . .	...
	17	Tilhar . . .	...			90	Bahraich . . .	...
Budaun . . .	18	Budaun . . .	...		Barabanki . . .	91	Bhinga* . . .	...
	19	Bilsa . . .	...		Sultanpur . . .	92	Nanpara . . .	...
Dehra Dun . . .	20	Ujhani . . .	...		Partabgarh . . .	93	Nawabganj . . .	...
	21	Sahaswan . . .	...		Gorakhpur . . .	94	Sultanpur . . .	...
Saharanpur . . .	22	Dehra . . .	...		Azamgarh . . .	95	Bela . . .	...
	23	Mussoorie . . .	...		Ghazipur . . .	96	Gorakhpur . . .	...
	24	Saharanpur . . .	...		Ballia . . .	97	Azamgarh . . .	...
	25	Hardwar Union . . .	...		Benares . . .	98	Ghazipur . . .	...
	26	Deoband . . .	...		Mirzapur . . .	99	Ballia . . .	...
	27	Roorkee . . .	...		Jaunpur . . .	100	Benares . . .	...
Muzaffarnagar . . .	28	Muzaffarnagar . . .	...			101	Mirzapur . . .	...
	29	Kairana . . .	...		Punjab.	102	Chunar . . .	...
	30	Kandhala . . .	...		Rohtak . . .	103	Jaunpur . . .	...
	31	Meerut . . .	...					
	32	Ghaziabad		Delhi . . .	1	Rohtak	None.
	33	Baraut . . .	...		Umballa . . .	2	Beri . . .	...
Meerut . . .	34	Bagpat . . .	...			3	Delhi . . .	...
	35	Sardhana . . .	...		Simla . . .	4	Umballa . . .	...
	36	Mawana . . .	...			5	Simla . . .	...
	37	Shahdara . . .	...		Jhang . . .	6	Kasauli . . .	...
	38	Hapur . . .	...			7	Subathu . . .	...
	39	Pilkhawa . . .	...			8	Dagshai . . .	...
Bulandshahr . . .	40	Bulandshahr . . .	...		Lahore . . .	9	Jhang Cum Maghiana . . .	...
	41	Anupshahr . . .	...		Amritsar . . .	10	Lahore . . .	...
	42	Sikandrabad . . .	...		Bannu . . .	11	Amritsar . . .	...
	43	Khurja . . .	...		Dera Ghazi Khan . . .	12	Edwardesabad . . .	...
Aligarh . . .	44	Koil . . .	...			13	Dera Ghazi Khan . . .	...
	45	Hathras . . .	...		Kangra . . .	14	Leiah . . .	...
	46	Sikandra Rao . . .	...		Jullundur . . .	15	Dharmsala . . .	...
	47	Atrauli . . .	...		Gurdaspur . . .	16	Jullundur . . .	...
	48	Etah . . .	...		Rawalpindi . . .	17	Dalhousie . . .	...
Etah . . .	49	Soron . . .	...			18	Murree . . .	...
	50	Kasganj . . .	...		Jhelum . . .	19	Rawalpindi* . . .	...
	51	Marehra . . .	...			20	Jhelum* . . .	...
	52	Jalesar . . .	...		Mooltan . . .	21	Pind Dadan Khan* . . .	...
Muttra . . .	53	Muttra . . .	...			22	Mooltan* . . .	...
	54	Kosi		Central Provinces.				None.
Farukhabad . . .	55	Brindaban . . .	...		Raipur . . .	1	Raipur . . .	...
	56	Farukhabad-Fatehgarh . . .	...		Nagpur . . .	2	Nagpur . . .	...
Mainpuri . . .	57	Mainpuri . . .	...			3	Narsinghpur . . .	...
	58	Agra . . .	...		Narsinghpur . . .	4	Chhindwara . . .	...
Agra . . .	59	Fatehpur-Sikri . . .	...			5	Gadarwara . . .	...
	60	Ferozabad . . .	...		Hoshangabad . . .	6	Harda . . .	...
Etawah . . .	61	Etawah . . .	...	Sambalpur . . .	7	Sambalpur . . .	...
Lucknow . . .	62	Lucknow . . .	...					

* In places marked with an asterisk the Vaccination Act was introduced in 1896.

Appendix B to Section VII—continued.

List of towns and rural tracts where the Compulsory Vaccination Act is in force.

Province and district.	Town.		Rural tract.	Province and district.	Town.		Rural tract.
Central Provinces—contd.				Madras—contd.			
Damoh .	8	Damoh .	...	Tanjore .	39	Kumbakonam .	...
Balaghat .	9	Hatta .	...		40	Mannargudi .	...
	10	Burha .	...		41	Mayaveram .	...
	11	Lalbara .	...		42	Negapatam .	...
Chhindwara .	12	Waraseoni .	...	Kurnool .	43	Tanjore .	...
Burhanpur .	13	Katangi .	...	Madras .	44	Kurnool .	...
Bhandara .	14	Chhindwara .	...	South Canara .	45	Madras .	...
	15	Burhanpur .	...	Nellore .	46	Mangalore .	...
Bilaspur .	16	Bhandara .	...	Tinnevelly .	47	Nellore .	...
	17	Pauni .	...		48	Ongole .	...
Saugor .	18	Tumsar .	...		49	Palamcottah .	...
	19	Bilaspur .	...		50	Tinnevelly .	...
	20	Saugor .	...	Salem .	51	Srivilliputtur* .	...
Nimar .	21	Rehli .	...		52	Tuticorin .	...
	22	Khurai .	...		53	Salem .	...
	23	Deori .	...		54	Tiruppattur .	...
Betul .	24	Garhakota .	...	Trichinopoly .	55	Vaniyambadi .	...
	25	Khandwa .	...		56	Srirangam .	...
Wardha .	26	Badnur* .	...	Coorg .	57	Trichinopoly .	...
	27	Betul* .	...			
Berar.	28	Multai* .	...			
	29	Wardha* .	...		1	Mercara .	...
					2	Virajendrapet .	...
Amraoti .	1	Amraoti .	...	Bombay.	3	Somvarpet .	...
Akola .	2	Amraoti Camp .	...		4	Fraserpet .	...
	3	Akola .	...		5	Kodlipet .	...
	4	Khamgaon .	...			
Basim .	5	Shegaon .	...	Bombay .	1	Bombay City .	...
Wun .	6	Akot .	...		2	Karachi .	...
Buldana .	7	Basim .	...	Lower Burma.			
Ellichpur .	8	Yeotmal .	...		1	Akyab .	...
	9	Buldana .	...		2	Rangoon .	...
	10	Ellichpur City .	...		3	Bassein .	...
	11	Ditto Civil Station .	...		4	Ngathainggyaung .	...
Madras.					5	Myaungmya .	...
	1	Adoni .	...		6	Henzada .	...
	2	Bellary .	...	Henzada .	7	Myanaung .	...
Anantapur .	3	Anantapur .	...		8	Zalun .	...
	4	Anakapalle .	...		9	Kyangin .	...
Vizagapatam .	5	Bimlipatam .	...	Thayetmyo .	10	Thayetmyo .	...
	6	Vizagapatam .	...		11	Toungoo .	...
	7	Vizianagram .	...	Tavoy .	12	Tavoy .	...
Ganjam .	8	Berhampur .	...	Shwegyin .	13	Shwegyin .	...
	9	Chicacole .	...	Prome .	14	Prome .	...
	10	Parlakimedi .	...		15	Paungde .	...
Kistna .	11	Bezwada .	...	Sandoway .	16	Sandoway .	...
	12	Guntur .	...		17	Maubin .	...
	13	Musulipatam .	...	Thongwa .	18	Yandoon .	...
Malabar .	14	Calicut .	...		19	Margui .	...
	15	Cannanore .	...	Mergui .	20	Moulmein .	...
	16	Cochin .	...	Amherst .	21	Thaton .	...
South Arcot .	17	Palghat .	...	Pegu .	22	Pegu .	...
	18	Telichery .	...	Kyaukpyu .	23	Ramree .	...
	19	Chidambaram .	...		24	Kyaukpyu .	...
Godavari .	20	Cuddalore .	...	Upper Burma.			
	21	Cocanada .	...			
	22	Ellore .	...			
Coimbatore .	23	Rajahmundry .	...		1	Mandalay .	...
	24	Coimbatore .	...		2	Myingyan .	...
	25	Erode .	...		3	Pagan .	...
Chingleput .	26	Karur .	...		4	Salin .	...
Nilgiris .	27	Conjeveram .	...		5	Minbu* .	...
Cuddapah .	28	Coonoor .	...		6	Pyinmana .	...
	29	Ootacamund .	...		7	Yamethin .	...
	30	Cuddapah .	...		8	Pakokku .	...
Madura .	31	Dindigul .	...		9	Toungdwingyi .	...
	32	Madura .	...		10	Monywa .	...
	33	Pireakulam .	...		11	Yeu .	...
North Arcot .	34	Palni .	...		12	Sagaing .	...
	35	Gudiyattam .	...		13	Shwebo .	...
	36	Tirupati .	...		14	Bhamo* .	...
	37	Vellore .	...		15	Kyaukse* .	...
	38	Walajapet .	...			

* In places marked with an asterisk the Vaccination Act was introduced in 1896.

Appendix B to Section VII—concluded.

List of Cantonments where the Compulsory Vaccination Act is in force.

Command.	Cantonment.	Command.	Cantonment.
Bengal .	1 Dum-Dum.	Punjab .	1 Umballa.*
	2 Barrackpore.		2 Rawalpindi.*
	3 Cuttack.		3 Kasauli.
	4 Dinapore.		4 Subathu.
	5 Dibrugarh.		5 Dagshai.
	6 Shillong.		6 Murree.
	7 Allahabad.		7 Dharmsala.
	8 Benares.		8 Dalhousie.
	9 Agra.		9 Jullundur.
	10 Cawnpore.		10 Mian Mir.
	11 Meerut.	Madras .	1 Madras.
	12 Delhi.*		2 Vellore.
	13 Dehra Dun.		3 Vizianagram.
	14 Chakrata.		4 Cannanore.
	15 Roorkee.		5 Trichinopoly.
	16 Fyzabad.		6 Bangalore.
	17 Landour.		7 Bellary.
	18 Jhansi.		8 Coonoor.
	19 Moradabad.		9 Belgaum.
	20 Bareilly.		10 Secunderabad.
	21 Sitapur.		11 Rangoon.
	22 Muttra.		12 Thayetmyo.
	23 Fatehgarh.		13 Moulmein.
	24 Shajahanpur.		14 Bhamo.
	25 Naini Tal.		15 Myingyan.
	26 Lucknow.		16 Shwebo.
	27 Almora.		17 Meiktila.
	28 Ranikhet.		18 Mandalay.
	29 Lansdowne.	Bombay .	None.
	30 Gorakhpur.		
	31 Jubbulpore.		
	32 Saugor.		
	33 Pachmarhi.		

* In places marked with an asterisk the Vaccination Act was introduced in 1896.

SECTION VIII.

SANITARY WORKS—MILITARY.

204. The outlay on Military Works in India, during 1896-97, amounted to
Expenditure on Military Works R89,01,312, against R86,65,992 in 1895-96.
during 1896-97.

Details of sanitary works executed in Cantonments will be found in Tables V and XXX of the Statistical series appended to this report, in which the sanitary defects of such stations as were most unhealthy are also noted.

205. The works executed during 1895-96 for the health and comfort of
the European and Native troops are briefly noted
Details of Military Works in 1895-96. below—

ACCOMMODATION FOR BRITISH TROOPS.

Sitapur.—A scheme for reconstruction and restoration of buildings, including new buildings, to accommodate a head-quarter wing of a British Infantry Battalion was nearly completed during the year.

As regards new buildings, Nos. 2 and 5, single-storeyed barracks with subsidiary buildings were completed during the year, as well as cook-house No. 52, lavatories Nos. 22 and 23 were re-modelled and new seats, etc., provided for No. 28 latrine. The restoration of double-storeyed barracks Nos. 1, 2, 3 and 4 was completed. Barracks Nos. 9 and 10 were commenced, about one-third of the work being done.

Dinapore.—The construction of Nos. 1—6, half-company barracks for British Infantry, was proceeded with at the close of the year, the first pair of barracks and their subsidiaries being nearly completed.

Lebong.—For the requirements of a detached wing of British Infantry two half-company barracks, with two latrines, two lavatories, two cook-houses, and two urinaries were completed; six quarter-company barracks and two sentry boxes were also completed. The following works were in progress, *viz.*:—guard-room, block of five family quarters, block of eight family quarters, liquor-bar, institute and furniture store; also a block of two class B married sergeants' quarters and guard-room lavatory.

Chakrata.—The provision of ablution rooms to certain lavatories in the British Infantry lines was completed.

Kuldunnah—Hut accommodation.—The following works were carried out, *viz.*:—quarter-guard, lock-up, provost-sergeants' quarters and cells for British Infantry; double cook-house for the sergeant-major's and bandmaster's quarters, also two company and two half-company cook-houses. A latrine for the quarter-guard and cells, two company and one half-company lavatories; three company and ten half-company urinaries.

Gharial.—For the British Infantry Battalion—A guard-room, lock-up and provost-sergeants' quarters, two company and 10 half-company cook-houses, two half-company lavatories, five company and two half-company latrines, were completed.

Dalhousie.—Institute buildings for the Convalescent Dépôt were in progress.

Solon.—An institute for the detached wing of British Infantry was in progress.

Colaba.—Barracks for single men of the British Infantry and Royal Artillery were completed.

Colaba.—The conversion of a temporary barrack for an institute for British Infantry was completed.

Wellington.—Construction of five double-company cook-houses for the single men's barracks was completed.

Colaba.—New combined school for Royal Artillery and British Infantry was in progress.

Chakrata.—The reconstruction of a school in the British Infantry lines was commenced.

Aden.—Additional school accommodation for Royal Artillery at Steamer Point was completed.

ACCOMMODATION FOR NATIVE TROOPS.

Lansdowne.—Public buildings for 2-3rd Gurkhas. The following works were completed, *viz.*:—magazine, rifle range, tanks, reservoirs, etc., and public roads. The parade-ground was in progress.

Public buildings for 9th Bengal Infantry (Gurkhas).—The following works were completed, *viz.*:—quarter-guard, four double-company armouries, quarter-masters' stores, armourers' shop, magazine, solitary cells, and public roads.

Dharmasala.—Accommodation for 1-1st Gurkhas at Bhagsu. The construction of a parade-ground was in progress. Conversion of certain existing buildings into authorized public buildings for Gurkhas was nearly completed. Construction of movable iron latrines was in progress.

Aden.—Additional accommodation for Sappers and Miners at Steamer Point was in progress.

HOSPITALS.

Ranikhet.—The following station-hospital buildings, forming part of the project for the hutted camp, were completed, *viz.*:—Ambulance-cart shed, enclosure paling, dooly-bearers' hut, quarters for 22 single servants. Medical subordinates' quarters with out-houses, were in progress.

Chowbutia.—The following works, in connection with the station hospital buildings, were in progress, *viz.*:—Contagious diseases' ward, attendants' room and cook-house; converting No. 51 building into quarters for two medical subordinates, and quarters for 11 single servants.

Lansdowne.—For the 2-3rd Gurkhas a mortuary and an infectious diseases ward were in progress.

For the 9th Gurkha Rifles—a hospital for 52 patients, guard-room, mortuary, cook-house, latrine, infectious diseases ward, hospital assistants' quarters and hospital servants' quarters were completed.

Jhansi.—In connection with the scheme for new station hospital buildings, the third block for 34 male patients was completed.

Rawalpindi.—The construction of a contagious diseases building in the British Infantry Lines was carried out to the extent that the allotment permitted.

Peshawar.—A contagious diseases hospital was completed. Hospital Assistants' quarters in the Native Cavalry and Native Infantry Lines were

nearly finished ; those in the Sappers and Miners' Lines were half finished. The hospital servants' quarters were about one-quarter finished.

Cherat.—The collection of materials was begun for the construction of hospital accommodation.

Dalhousie.—The conversion of Nos. 1 and 2 barracks into a station hospital was commenced.

Dagshai.—The construction of a contagious diseases ward at the station hospital was completed.

Aden.—The construction of a station hospital and the formation of a road leading thereto were in progress.

Wellington.—In connection with the extension of the station hospital, a female hospital and contagious diseases ward were completed, and the extension of No. 25 hospital was half finished.

St. Thomas' Mount.—The conversion of a portion of the old south barracks into quarters for three hospital assistants, two assistant surgeons and one medical store-keeper, was held in abeyance owing to the transfer of another wing of Madras Infantry from Royapuram to the Mount.

Madras.—The construction of a detention hospital at Fort St. George was in progress.

Bangalore.—The extension of the station hospital was in progress.

Belgaum.—The conversion of part of No. 5 block, Royal Artillery Lines, into quarters for assistant surgeons and a barrack sergeant was completed.

Secunderabad.—An administrative office at the south station hospital was completed.

Lucknow.—Project for extension of station hospital accommodation—Detailed estimates for some of the sub-heads have been sanctioned and materials have been collected.

Quetta.—One set of quarters for a 2nd class assistant surgeon, with its out-houses and stabling, was completed.

OFFICERS' QUARTERS.

Lebong.—In connection with the requirements of a detached wing of British Infantry. Quarters for a major or two subalterns, with their out offices, No. 1 subalterns' double-quarters with out-houses, No. 3 subalterns' quarters, with out-offices and orderly-room, and out-offices for a block of two captains' quarters, were completed. A block of quarters for two captains, and a cook-house for four captains, were nearly completed ; No. 2 subalterns' quarters and out-offices was half finished.

Allahabad.—The construction of two officers' quarters and out-offices at the main gate of the Fort, was completed.

Chakrata.—At the hutted camp at Kailana, quarters for five captains were nearly completed and have since been occupied, the subsidiary buildings are only partially complete. Quarters for the Officer Commanding were completed, excepting the subsidiary buildings.

At Gobrana the reconstruction of one block of officers' quarters was commenced.

Rawalpindi, West-Ridge.—Quarters with out-houses were completed for two field officers and eight subalterns in the Right British Infantry Lines, for 12 subalterns in the Left British Infantry Lines, and for six subalterns in

Royal Artillery Lines. A pantry for the officers' mess, Right British Infantry Lines, and latrines for officers at the mess-houses in the Right and Left British Infantry Lines, also latrines for servants attached to these messes, were all completed.

Cherat.—Three blocks of officers' quarters were completed, one remaining in progress.

Quetta.—Two new officers' quarters with out-houses were constructed, also one for six unmarried officers on the site of the old bungalows. The quarters for other married officers were also completed.

WATER-SUPPLIES TO CANTONMENTS.

Karachi.—The work of improving the water-supply to the station hospital which was commenced at the close of the year, was well towards completion.

Lucknow.—The water-supply scheme may be said to be completed. The raised reservoir in connection with the cantonment water-supply which was in progress during the year was practically completed; the distribution of water to cook-houses and lavatories only remaining.

Allahabad.—The extension of the Municipal water-supply to the Fort was completed, except the fixing of hydrants ordered from England.

Lebong.—Water-works in progress could not be completed owing to the non-receipt of stores from England.

Fort William.—The work in connection with the remodelling of the distribution scheme for drinking water-supply was in progress towards the close of the year.

Dum-Dum.—The scheme for water-supply to this station was practically completed.

Rawalpindi.—The scheme for the supply of water to the cantonment and suddur and regimental bazaars was completed. A well near the encamping-ground at Barakao, on the Murree cart-road, was in progress.

Murree.—The water-supply was practically completed, the water having been supplied to all the hutted camps, except Ghora Dhaka.

Agra.—Water-supply to cantonment was completed.

Solon.—The provision of pipes in the cantonment and the construction of storage reservoirs, etc., were completed.

Dalhousie.—Water-supply by pipes to the cantonment was commenced in August 1895, but remained incomplete at the end of the year owing to the late receipt of pipes from England.

Fort St. George.—The provision of a pure water-supply to the Fort from the Red Hills main of the Municipal water-works was completed.

Replacing the 5" and 4½" main from the "seven wells" to the Fort by a new 6" cast-iron main was in progress.

Bangalore.—Water-supply to cantonment:—R33,007 was paid to the Mysore Durbar in connection with the acquisition of the Maligal valley catchment area, in addition to the sum of two lakhs paid in 1893-94. But the Maligal scheme having since been abandoned, a project for a supply from the Hessarghatta Lake has been prepared and submitted to Government for sanction. Rupees 18,245 was spent during the year on the latter scheme in collecting materials but work had not been commenced.

Secunderabad.—Water-supply for garrison was nearly completed.

Quetta.—A second reservoir, containing an additional two days' supply, the excavation of which had been carried out during the previous year, was finished and brought into use, thus completing the water-works scheme for the station.

Jhansi.—Water-supply to Fort was in progress.

Lansdowne.—Water-supply for 9th Gurkhas was in progress.

Dum-Dum.—The laying of a line of piping to the Rifle Range was practically completed.

OTHER CANTONMENT WORKS.

Lebong.—Connected with the requirements of a detached wing of British Infantry, a cart-road, paths, and drains were in hand.

Dum-Dum.—The work of improvements to the drainage was in progress.

Barrackpur.—Constructing a metalled road to Jafferpore Rifle Range :—The road-way has been formed and metal collected, but the work was not proceeded with, as it was necessary to wait until the embankment was consolidated by the rains.

Murree.—The parade and recreation ground is being improved and extended.

Ferozepore.—Improving the drainage was completed.

Bangalore.—Constructing drains in the North Byhardarhully lines were all completed, except the small extension sanctioned in March 1896.

Improving the drainage of British Cavalry barracks was half done.

Madras.—Clearing scrub jungle at Velichi Artillery Range was completed.

Quetta.—A metalled road was commenced from Ripon Road, near the officers' mess, to join the Beleli Road, the consolidation of the metal alone remaining to be done. A metalled road was completed, connecting Lytton Road with Gloster Road, south of McNair Road, and Mallaby Road was extended in a southerly direction towards the city; the metalling of Phayre Road was completed.

Jhansi.—Constructing a road from the old station hospital to the railway fencing was completed.

Mecrut.—The construction of new metalled roads in the Native Cavalry Lines was in progress.

SECTION IX.

CIVIL SANITARY WORKS.

306. During the year under review, sanitary improvements in very many, if not in the majority of the towns had to be postponed or curtailed on account of impending scarcity.

General Remarks.

As some compensation for this, there may be reckoned the excavation in many districts by relief workers of numerous tanks and wells, most of which will prove of permanent advantage to the people.

While it is satisfactory to note that improvement, especially in the direction of water-supply schemes, is on the whole steady, it seems to be doubtful if the very best results possible from the money expended are always obtained. An examination of the mortuary statistics of towns before and after the introduction of new water-supplies, shews that the death-rates are not always reduced in the degree that might be expected ; and that, in some towns, the mortality has been *apparently* greater after the introduction of the new supply than it had been before. The increased death-rates can be easily shewn in most cases to be due to improved registration, an improvement naturally coincident with the greater interest given to sanitary affairs. But when the good results that might be looked for do not follow the introduction of a new supply, it is not sufficient to give the comforting explanation that improvement has taken place in the registration of deaths ; this may be the case, but very careful enquiry into all possible causes of increased mortality should be undertaken. There may be no real improvement in the quality of the water consumed, or some condition detrimental to the public health may have accompanied the introduction of an improved supply of water. In most of the towns, it may be concluded from the amount of water per head that is taken from the works, that a mixed supply is being used ; and this is an unmixed evil, for the old sources of water are much less likely to be conserved than they were before the introduction of new supplies. It may be that sufficient care is not bestowed upon the works, and that the water when it reaches the public has been improperly filtered. A municipality may spend lakhs of rupees on a catchment-area and in providing reservoirs, filter-beds, mains and stand-posts, but give no attention to the upkeep of the works. Water-supply works require expert management, and to entrust their control to a man who knows nothing of hydraulics and less about the delicate working of a filter-bed is to court disaster, however skilfully and economically the pumping engines may be managed. Again, drainage may be at fault, where a greatly increased quantity of water is brought into a town before adequate means to remove it have been provided.

The most hopeful sanitary advance during the year, then, is the reconstitution of the Sanitary Boards in Bengal and in the North-Western Provinces. A properly constituted Sanitary Board, endowed with sufficient control over municipal bodies, will ensure continuity of work undertaken, and so prevent the

introduction of schemes to bring in water in to towns before sufficient means for its removal exist; and they will not permit municipal councils to allow works in which large capitals have been sunk to prove useless, or even dangerous, from want of efficient supervision.

207. As explained in the Report for 1895, the figures relating to expenditure on sanitary works in Bengal have reference not to the calendar year, but to the official year ending with the 31st of March. This change was made in 1895, in order that comparison with similar figures, furnished in reports on municipal administration, might be more easy.

Omitting Calcutta, the number of municipalities in Bengal in 1895-96, was 145, or one less than in the previous year, but the total income, including the opening balances in both cases, rose from ₹45,53,651 in 1894-95, to ₹46,02,679 in the year under review. Of this total, 52.79 per cent. was spent on original and recurring sanitary works, 9.03 per cent. on roads, 4.52 per cent. on the public safety, and 23.40 per cent. on other requirements. Under the three principal heads of expenditure, the totals were ₹9,96,441 on water-supply, ₹8,88,026 on conservancy, and ₹1,49,559 on drainage. As compared with 1894-95, there was a substantial increase of ₹1,98,832 devoted to water-supply, and a slight increase in the cost of conservancy, while the large decrease of ₹1,24,182 in the expenditure on drainage was due to inclusion in the total of the former year of ₹1,08,768 on account of the Patna drainage scheme, on which, in 1895-96 only ₹4,874 were spent.

The average proportion of income spent on original works was 5.03 per cent. In seventeen municipalities, including Jalpaiguri (34.84), Tittagarh (29.36), and Cossipore-Chitpur (19.06), where the highest proportions were expended, more than 10 per cent. of the municipal income was thus disposed of, while in 28, nothing at all was so spent. The average expenditure on recurring sanitary works was 37.64 per cent., ranging from 61.81 in English Bazar, in Malda, to 4.56 in Joynagar.

The most important sanitary business of the year were the completion of the Howrah water-supply works, which were opened in February 1896 by Sir Alexander Mackenzie; the completion of the Muzaffarpur drainage scheme; the extension of the Cossipore Chitpur water-supply; additions of the Serampore and Jalpaiguri drainage works; and the improvement of the water-supply, and the construction of drains, at Bhagalpur.

Nightsoil is trenched in most places on improved principles; but the cultivation of the trenching grounds does not seem to receive the attention from the municipal authorities which its importance demands. Dr. Dyson suggests that municipalities should be required to cultivate these grounds and exhibit the crops on market days in order to show the superiority of the produce of the highly manured land. He suggests also that the municipal cultivator should, in addition to his pay, get a percentage on the sale of the produce.

While the expenditure on sanitary works in rural areas amounted to ₹1,42,012 against ₹1,03,912 in the previous year, but little advance has, it is stated, been made in rural sanitation. Owing, however, to the deficient rain-fall and the consequently impending scarcity, numerous tanks and wells were dug, many of which will, no doubt, prove of lasting benefit to the localities in which they have been made. The sum provided by private generosity for sanitation, which in 1894-95 amounted to ₹1,88,875, rose to ₹4,94,131.

During the year, the Sanitary Board was strengthened by the addition to its membership of the Chief Engineer to Government in the Public Works Department, and was composed

Work of the Sanitary Board.
as follows :—

The Member of the Board of Revenue in charge of miscellaneous revenue	<i>President.</i>
The Chief Engineer to Government in the Public Works Department	} <i>Members.</i>
The Chief Engineer to Government in the Irrigation Department	
The Sanitary Commissioner	

with the Sanitary Engineer as Secretary. Not only was the Board strengthened but its functions were enlarged, and it has been ordered that all schemes relating to sanitary works should be referred to the Board for approval. The importance of such an enhancement of the scope of the work of the Board cannot be over-rated and calls for imitation in other provinces, especially in those in which no Sanitary Engineer has as yet been specially appointed.

There was the usual difficulty in holding meetings of the Board owing to the absence of members from head-quarters, and business had to be carried on by circulation of papers.

The principal projects with which the members dealt were the following :—

- (1) A scheme estimated to cost R33,232, for improving the drainage of Krishnagar by the excavation of the Anjuna Khal.
- (2) The Berhampore water-supply scheme, estimated to cost R2,38,883, was finally passed. This work, which is the gift of the late Maharani Surnamoyee, C.I., will, it is expected, be completed in 1897.
- (3) A scheme for the supply of filtered water to the municipalities situated on the left bank of the Hooghly. The Board were obliged to recommend the abandonment of this project as the cost, owing to the provision of elevated reservoirs to ensure a constant supply and the scattered situation of the populations, was prohibitive.
- (4) Schemes for draining the suburbs of Calcutta and remodelling the storm-water outfall, to cost R78,87,089, which were drawn up by Mr. A. H. Hughes, C.I.E., Engineer to the Corporation, were examined and approved.
- (5) An alternative scheme, to cost R2,50,000, for the supply of drinking-water to Midnapore.
- (6) An estimate for developing the existing distribution of water from the Howrah water-works.
- (7) Estimates and plans for the supply of pure water to the town of Chittagong. The estimated cost of the scheme is R2,37,898, but the matter has been referred to the local officers for reconstruction of the scheme on lines indicated by the Sanitary Engineer to the Board.
- (8) A scheme for the supply of pure water to Cuttack, at an estimated cost of R2,25,000 ; this had to be abandoned as beyond the means of the municipality.

The Board also gave opinions regarding a large number of miscellaneous subjects which were referred to them, and the Sanitary Engineer made many useful enquiries and inspections.

208. The total income in 1896 of the municipalities, towns, unions and stations in Assam, excluding the towns of Hailakandi, Sunamganj, Karimganj and Maulvi Bazar, which have no separate incomes of their own, amounted to Rs. 2,62,416. Of this sum Rs. 1,38,592, or 46·10 per cent., was spent on sanitary works, as compared with Rs. 1,15,175, or 44·13 per cent., of the total income thus expended in 1895. The highest percentage of municipal income devoted to sanitation was 71·37, spent in the small town of Mangaldai, the lowest 24·21, in the union of Jorhat.

As has frequently been noted, the towns of Assam are really populous straggling villages, built generally on level sites, so that any extensive schemes of water-supply or drainage must necessarily be expensive and beyond the means of comparatively poor communities.

In Gauhati and Shillong there are waterworks whence piped supplies of water are distributed in the municipal areas. A new pumping-engine was ordered for the works in Gauhati, but did not arrive, and during 1896, the old engine frequently broke down owing, seemingly, to defects in the boiler, so that water was frequently not available from the works. In Shillong, some extension of the pipe-supply was made, and it is proposed to extend the station supply to the cantonment.

In this report for 1893, an account of the projected water-supply works at Sylhet was given. It was intended to sink wells on a suitable site, and to pump water from them to an elevated reservoir whence, after proper filtration, it would be distributed by pipes and hydrants. It appears, however, that this scheme was unsuitable, and the following remarks regarding it are taken from the Resolution, published by order of the Chief Commissioner which accompanies the report of the Sanitary Commissioner :—

“ The first of these wells has recently been completed at a cost of Rs. 7,700, the work of construction having lasted for several years. Mr. Cotton’s attention was drawn to the matter while on tour in Sylhet, and he ascertained that the scheme, if completed, would involve a capital expenditure of nearly two lakhs of rupees, to say nothing of the cost of maintenance. A town of the size of Sylhet, containing only 15,000 inhabitants, is too poor to be able to construct or maintain water-works on such a scale, and the Chief Commissioner has, therefore, suspended further operations in connection with the scheme while pointing out other means for improving the water-supply of the town at a cost within the means of the inhabitants.”

In many towns, wells have been constructed, but the inhabitants decline to drink water from them, preferring water from rivers and tanks. It is generally impossible to prevent the pollution of rivers, and the Sanitary Commissioner seems to be of opinion that the best method of improving the water-supply is to protect the tanks and make arrangements to pump the water from them into reservoirs, from which it can be drawn off by means of taps.

Silchar, Manipur and Fort Aijal are the only places where excreta are destroyed by fire—this, it appears, can be successfully done by means of Young’s incinerator. In other towns, the trenching system is in force, and is stated to be satisfactory only when carefully carried out in places where the trenches are not liable to be flooded during the rainy season. In rural areas, no sanitary work of any magnitude was begun, but a large number of masonry wells were sunk, old wells were cleaned, and tanks were repaired. It has for some time past been the policy in Assam to discourage the excavation of tanks and insist on the construction of masonry wells for the provision of drinking

water. But, as already stated, the people greatly prefer tanks to wells; and, as it is impossible to exercise proper supervision over either tanks or wells in rural areas, the Chief Commissioner, after considering all the arguments for and against tanks as a source of water-supply, has decided to remove the absolute prohibition against the digging of tanks, leaving it to the discretion of Local Boards to carry out the measures in their opinion best suited to the locality concerned.

Sanitary Board.

209. "The Sanitary Board did not meet during the year."

North-Western Provinces
and Oudh.

210. The income of the 103 municipal towns in these provinces, in 1895-96, excluding opening balances, was ₹52,92,870, as compared with ₹55,06,002 in the previous year.

Although the income was slightly less than in 1894-95, the expenditure on sanitary works, except for conservancy, markets, etc., was greater; on water-supply ₹10,97,305 against ₹8,29,523; on conservancy, ₹8,88,488 against ₹8,97,945; on drainage, ₹4,30,079 against ₹3,42,500; and on markets and slaughter-houses ₹47,723 against ₹56,432.

There are seven large municipal towns in the provinces, namely, Agra, Allahabad, Benares, Cawnpore, Lucknow, Meerut and Bareilly, and all, except Bareilly, have now been furnished with complete water-supply works, varying in cost from ₹25,62,000 at Benares, to ₹7,40,000 at Meerut, all met from loans advanced by Government, to be repaid with interest by sixty half-yearly instalments. In each of these towns, an Engineer has been employed to carry out and maintain the works, and to give effect to any extensions which may be necessary. The Meerut Board have dispensed with the services of their Engineer from the 1st of April, and placed the control of the water-works in charge of the Superintendent, an experiment which the Sanitary Engineer of the province notes, "will be watched with every care, and some amount of interest."

The two hill stations of Mussoorie and Naini Tal have also pumped water-supplies, and the works have been supervised by the Municipal Secretaries who, as a rule, have also been engineers, "but the results seem to indicate that some better and more efficient professional control is required." It is in contemplation to appoint a Superintendent of Machinery for the provinces; the need for having such an officer to supervise the working of the different pumping engines has been apparent during the year, but the demands of famine works have necessitated too rigid economy in every direction to admit of an appointment being made.

The Meerut water-works were opened early in 1896, and the supply was available for general use from the 6th of May. The original estimate of ₹8,00,000 was reduced to ₹7,50,000, and the actual expenditure will probably be less. During 227 days the supply amounted to 73,238,631 gallons, equal to 4.55 gallons per head per diem. The character of the supply is good, although, owing to one filter being carelessly worked, 3,000 microbes in a c.c. were on one occasion present. The average of a large number of samples from that filter, however, was only 25.8 microbes in the c.c., and in samples from other filters even less. Only one house connection was made.

The Dehra-Rajpur works were completed in the beginning of the hot weather. This is a gravitation supply from springs half way up to Mussoorie. The estimated cost was ₹97,241, but, owing to a favourable rate of exchange, the actual cost was only ₹93,100.

At Benares, 628,846,304 gallons were supplied, equal to 8·12 gallons per head, against 7·5 gallons in 1895. The number of house connections is 3,887. The character of the supply was good. A raised reservoir, estimated to cost R78,036, was commenced just before the rains and is rapidly approaching completion. The reservoir will hold 250,000 gallons and will give an initial head of pressure between 71 and 56 feet.

At Lucknow, 391,309,106 gallons were supplied, equal to 2·95 gallons per head, a slightly increased consumption as compared with 1895, when it was 2·6 per head. There are practically no house-connections. The supply was generally good. A raised reservoir to hold 250,000 gallons and giving a head at the filtering station, where it has been erected, of from 53 to 42 feet, was finished at a cost of R60,255. Several extensions of the water-supply, notably to the Chauk and Daulatganj wards, were made.

At Cawnpore, 391,309,106 gallons were delivered, equal to 7·5 gallons per head, considerably less than in 1895 when the average consumption was 8·41 gallons. The number of house-connections was 93, and about 35 miles of drains were flushed daily. The quality of the water was good.

At Allahabad, 580,024,042 gallons were supplied, or 10 gallons a head, against 8 in the previous year. There were 1,430 house-connections, and over 16 miles of drains were flushed daily. The supply was generally good, although on two occasions it was reported that a microbe believed to be that of enteric fever was detected in the filters. An investigation was made in both instances and the result reported to Government. The extension of the water-supply to Daraganj and the site of the fairs, was under construction.

At Agra, 569,406,613 gallons of water were supplied, or 10·5 gallons per head per diem, against 8 in the previous year. Thirty-four house-connections were made, bringing the total to 597. The water was of good quality.

At Naini Tal the amount of water delivered could not be exactly estimated, but it is stated to have been quite inadequate to the requirements, and the pumping arrangements were faulty. A new scheme has been adopted.

At Mussoorie, 6·4 gallons per head were supplied daily. There are no house connections and the drains are not flushed.

The cost of delivering 1,000 gallons of filtered water in 1896-97 was rather more than 1½ annas in Agra, Allahabad and Benares; just over 2 annas in Cawnpore and Lucknow; 2¾ annas at Meerut, where the cost is expected to fall; the cost at Mussoorie is not known, and at Naini Tal it was just under a rupee.

A preliminary rough estimate, amounting to R7,00,000, for works at Bareilly was considered beyond the resources of the municipality. Water-supply projects for Farukhabad-Fatehgarh, Fyzabad-Ajudhia and Jhansi are in contemplation.

The sewerage and drainage scheme at Benares is by far the largest and most expensive which has been undertaken in the province. The total cost is estimated at R19,40,000, and work to the value of R6,00,327 has been completed. The main sewer, outfall, and subsidiary works were expected to be completed early in 1897, and branch sewers in the unsewered area later in the year. Owing to financial pressure, part of the work has been postponed, and, in the meantime, a programme of the work to be taken up year by year has been drawn up.

At Cawnpore, the greater portion of the scheme for the *Sadar Bazar* was completed, but there was practically no progress made with the main project for the city.

At Agra, the paving and draining of *Muhallas* is being continued. Estimates and plans for an intercepting sewer, to run along the river bank, and so cut off the eight main drains which at present run right into the river, were prepared and are being considered.

At Mussoorie, a scheme estimated to cost R40,000, for a sewage shoot and farm is being carried out. So far only R19,449, for land and pipes, which are now at the site, have been spent, as, owing to defective preliminary arrangements, the work was not begun.

At Kasganj, in the Etah district, a scheme for improvement of the drainage was completed.

At Hardwar, a four-celled incinerator on the Garlick type was completed, but the working of it, probably on account of lax supervision, has not been satisfactory. It was reported that in 84 days 1,334 maunds of night-soil were consumed, with an expenditure of 2,200 maunds of fuel, to which 2,388 maunds of street sweepings were added, the cost being about $4\frac{1}{2}$ annas per maund of filth, which is excessive. It is hoped that care in the use of fuel and a better way of treating the night-soil before it is burned, may prove more economical.

Drainage schemes for Bareilly, Fyzabad-Ajudhia, Farukhabad, Jhansi, Pilibhit, Dehra, Hathras, Saharanpore, Muzaffarnagar, Aligarh, Deoband and Hardwar have been proposed or are in contemplation.

Many improvements were carried out in rural areas, and, although the circumstances of the year were not favourable to the execution schemes of sanitary improvements through the ordinary staff who were otherwise fully occupied, the relief-works undertaken in the neighbourhood of many villages will prove of permanent benefit.

211. During the year the Sanitary Board was reconstituted, and converted from a consultative into an executive body; funds were placed at its disposal, and definite functions delegated to it. The resolution* by the Local Government in which these changes are ordered deals with the reorganization of the sanitary service of the province generally, and from the sanitary point of view is one of the most important ever issued by a Local Government in India.

There were three meetings of the Sanitary Board during the year, two at Naini Tal under the old organization, and one at Lucknow, of the reconstituted Board. The following were among the subjects considered at the first two meetings :—

- (1) The Report of the Provincial Sanitary Commissioner for 1895; attention was specially drawn to remarks on defective registration.
- (2) The final draft of a letter to the Local Government, containing the Board's opinion on the best method of maintaining village sanitary records, was approved.
- (3) The attention of the Board was called to delay in extending the water-supply of Allahabad to Daraganj, and the delay brought by them to the notice of Government, with the best results.

* Appendix A to this Chapter.

(4) The abnormally heavy mortality in the small town of Baghpat and Deoband. The Board deputed the Sanitary Commissioner and the Sanitary Engineer to make enquiries on the spot.

The new board met at Lucknow on the 23rd November 1896.

1. It was arranged to obtain from Commissioners, lists of sanitary works contemplated in the various divisions.

2. It was decided to ask Government for an increase of strength, and reorganisation of the pay, of registration clerks in each district.

3. The Sanitary Commissioner's instructions to Civil Surgeons regarding the regrouping of registration circles were approved.

4. It was decided to ask Government what funds would be placed at the Board's disposal during the coming year.

5. A proposal of the Chemical Examiner to discontinue the chemical analyses of municipal water-supplies in favour of bacteriological analyses alone was negatived, as the former were considered quite as valuable as the latter for the purposes for which the examinations are made.

212. The income of the municipal towns in the Punjab in 1896, including an opening credit balance of **₹12,28,318**, was **₹53,98,100**, against **₹55,30,673** in the previous year. Of the total, **₹12,36,690** was devoted to sanitary works, against **₹12,33,037** in 1895. Under the three main headings, water-supply, drainage, and conservancy, sums, respectively, of **₹1,66,744**, **₹1,26,608**, and **₹5,83,174** were expended.

The amount realised from the sale of manure and town sweepings was **₹1,36,076**, which, although upwards of **₹3,000** less than in 1895, was a larger sum than those obtained in previous years.

During the year the Haripur water-supply scheme was completed at a cost of **₹43,000**. The piped water-supply of Kohat was extended to the small village of Chillarkot close to the cantonments. The project for the water-supply of Bhiwani, in the Hissar district, was begun. Some progress was made with the Ludhiana scheme, while that for the supply of Ferozepore cantonment was considered.

In Delhi, a portion of the drainage scheme was completed, and estimates for the remainder were sanctioned. Drainage projects for Lahore, Mooltan, Gujranwala, Rawalpindi and Hazro were in process of being carried out; estimates for schemes for Ladwa, Umballa, Ferozepore and Fazilka were under consideration; and similar estimates for Gurdaspur, Gujrat and Jagraon were prepared.

In the Delhi district, the construction of a filth trenching farm was begun. The area is about 250 acres situated south of the city of Delhi. This area is divided into three plots, one of which will be trenched, while a second is lying fallow and the third cultivated.

213. The Sanitary Board met twice during the year, and considered the following subjects :—

1. Correspondence in connection with the Ferozepore City and Cantonment Drainage Scheme, with a note by the Secretary to the Board, showing what further progress had been made in the matter since July, 1894.

2. Statements, drawn up by Mr. E. Oliver, when officiating as Chief Engineer, in which he described the sanitary condition of the municipal towns, and suggested improvements. Copies of these statements were sent to the

local officers concerned with enquiries as to how far they were in a position to carry out the suggested improvements.

3. The progress report of sanitary reforms regarding which the Board recorded their opinion that minor sanitary works had progressed very satisfactorily.

4. The prevalence of fever in the province, specially in swampy and waterlogged areas, and the remedies that might be applied.

214. The income of the nineteen *Sadar* towns in the Central Provinces, in 1896, was ₹16,26,680, and, excluding sums aggregating ₹80,778, which were spent on medical relief, vaccination and miscellaneous works, ₹2,79,252 were spent on sanitation, including ₹52,420 on water-supplies, against ₹50,449 in 1895; ₹2,05,089 on conservancy, against ₹1,95,861, and ₹16,895 on buildings against ₹32,586.

The most important works carried out and in contemplation during the year were the following :—

Wardha.—The estimate prepared in 1895, for a scheme to supply the town with water by pumping from the river Paunar, was considered in May, 1896. It was resolved to modify the scheme so as to include a service reservoir and so avoid pumping the water into the mains direct from the filtering stations.

Bhandara.—An estimate, amounting to ₹1,85,434, to supply the town with water by pumping from the river Wainganga was considered, and sanction was given to the preparation of a final estimate.

Jubbulpore.—Further progress was made with the completion of the water-supply works, on which about ₹32,000 was expended during the year.

Harda.—The experimental wells, begun in 1895, were finished, as well as filtration and sump wells, and a preliminary estimate for ₹19,575, to pay for lands occupied, head-works and approach roads, was sanctioned.

Khandwa.—The water-supply works were practically completed, and pipes were laid in the town, at a total cost of ₹3,01,302.

A survey for a water-supply scheme for Chhindwara was completed; a preliminary survey was undertaken at Bilaspur; and, at Hoshangabad, a water-supply scheme on a small scale was under consideration.

Plans and estimates for a main out-fall drain for Jubbulpore City were approved, and a drainage scheme for Wardha was under consideration.

Considerable sums were realised by many of the towns from the sale of night-soil, or from the lease of the lands in which it had been deposited.

215. The Sanitary Commissioner is the president of the Board, and the members are the Commissioners and certain district officials of the division in which a meeting is held. There were four meetings during the year, at Nagpur, Raipur, Jubbulpore and Pachmarhi, when proposals and estimates for schemes of sanitary improvement in the various districts were considered.

216. The total estimated income of the municipalities in Berar was ₹2,42,922, of which 74·2 per cent. was allotted for Sanitary Works and ₹1,70,515, or nearly 95 per cent. of the allotment, was actually spent as follows :—On water-supply, ₹71,180; on conservancy, ₹59,988; on drainage, ₹10,208; and on other sanitary works, ₹29,139.

No new work of magnitude was undertaken, but the Kapsi water-supply scheme for Akola was completed at an expenditure during 1896 of ₹35,598.

The year was a very dry one, and Dr. Little made a careful examination into the water-supplies of the various municipalities.

At Akola, where the water is derived from infiltration galleries at Kapsi, ten miles from the town, the water fell so low in the upper gallery that it was necessary to pump water from the lower gallery for the supply of the town. A chemical examination of specimens of the supply taken at the gallery and from a stand-post in the town, showed that the water was of fair quality, and that in its passage along the closed pipes the water had gained slightly in total solids and chlorine, while it had lost free ammonia.

Amraoti camp is supplied with water from a tank at Wadali, the water being derived from an unpolluted catchment area. There are two filter beds, passage through which appears to greatly improve the potable quality of the water. There is a considerable village near the tank ; this Dr. Little considers a source of danger and has recommended its removal.

Amraoti City is supplied from a tank fed from a conserved catchment area in the Amraoti hills. The water is supplied without filtration. Specimens of water taken from the tank and from a stand-post shewed that the water, during its passage through the pipes, gained considerably in total solids, while the free and albuminoid ammonias were considerably diminished.

Khamgaon derives its supply from the Januna tank, about two miles from the town. The catchment area is about 800 acres in extent and is unpolluted. Examination of the water shewed a considerable amount of organic impurity, believed, in the absence of chlorine, to be vegetable in origin.

Buldana obtains water from the Sutrabur tank, situated in a depression between low hills, about a mile from the town. The catchment area is chiefly grass land, but there are teak trees near the tank, and the large leaves find their way into the water. In this case, although the water in the stand-post was slightly better than that in the reservoir, there was present a considerable amount of organic impurity of vegetable origin.

Only one of the water-supplies, that of Amraoti Camp, appears to be filtered before delivery ; most contain a considerable amount of sediment and organic impurity, and would no doubt be improved by the use of settling-tanks and filter-beds. But these improvements are perhaps, for the present, beyond the means of the communities concerned ; meanwhile the specimens of water at the time they were examined were probably less pure than in a year of normal rainfall ; and care is taken at the sources to prevent the ingress of dangerous impurities.

The street and house sweepings are sold in most municipalities. In Basim the sweepings are stored in pits, which is said to greatly improve their manurial value. In most of the towns, the night-soil is trenched or converted into poudrette, but the trenches are not cropped in all cases. The Sanitary Commissioner urges on Municipal Committees the importance of a proper disposal of town-refuse and night-soil :

“ The disposal of night-soil and sweepings, if efficiently and diligently carried out, must result in the satisfactory cleanliness of our towns apart from the money income it would bring, and I would earnestly ask municipal bodies to give this matter a foremost place in their deliberations and work.”

A sum of Rs 1,06,834 was allotted by District Boards for sanitary works and Rs 82,695, or 77·4 per cent. of the total was spent ; Rs 28,950 on water-supply,

₹12,690 on drainage, and ₹37,217 on "domestic cleansing,"—mainly conservancy.

217. The District Sanitary Boards met six times during the year, once in each district. They considered the measures taken by Sanitary Board. local bodies to give effect to the recommendations of the provincial Sanitary Commissioner, and recorded their suggestion against each incomplete work. "One tangible result of this action is that, in 1896, a sum of ₹51,368 was spent on sanitary improvements recommended in the Sanitary Surveys."

Proposals to legalise a system of village sanitation were circulated throughout the province, in order to elicit expressions of native opinion. In all, about seventy persons gave their opinions, and were unanimously opposed to any present legislative interference with the customs of the people, in connection with sanitary reform.

218. Excluding the presidency town, the total income of the remaining 58 municipalities in Madras, was estimated to amount, in 1896-97, to ₹33,25,370. The sum allotted to sanitary works was ₹16,00,003, or 48·1 per cent. of the total income, and the amount actually spent in the nine months ending with December 1896, was ₹9,72,097, including ₹2,91,747—little more than half the allotment, on water-supply; ₹4,18,292 on conservancy; and ₹1,93,958 on the improvement of sites. The municipal income of Madras City was ₹14,38,560, from which a sum of ₹4,48,826 was set aside for sanitation, and ₹3,58,466 were actually spent during the nine months, chiefly on conservancy on which ₹2,54,343 were expended, against only ₹2,976 on the improvement of water-supply.

The Sanitary Commissioner chronicles a noteworthy advance in the views of the majority of the Municipal Councils in Madras. Until recently they were content to provide means to get rid of sewage; now, it appears, that more municipalities have signified their willingness to undertake public water-supply schemes than the Government are able to provide with grants-in-aid, and engineers. Meanwhile, however, in those towns where public supplies have been provided the old sources co-exist with the new. In this connection certain observations made by Dr. King are important and interesting:

"For example, in Madras in a native house of a respectable, but not wealthy, class having a public water-tap within 10 yards of it, the supply per head was found to be eleven gallons from a well in the premises, and 2·20 gallons from the public supply on observation carefully conducted and extending over a period of ten days: in another instance where only the public supply was used, the consumption was found to be 14·61 gallons per head—the experiment also extending over ten days. Again, in such water works as have been formed in the mofussil, the works themselves do not offer the facilities, nor have the municipalities the apparatus, nor, at present, the wish to largely use the supply for municipal purposes. With the object of throwing some light on this important and strictly sanitary question, I circulated to District Sanitary Officers forms asking for measurements of the water-supply of households for seven-day periods, under the superintendence of medical subordinates. For facilitating calculations an arithmetical table, and forms setting forth the various domestic purposes to which water is put, were supplied. Altogether, the results of 65 observations extending over the required period were received. The total average showed that the amount required for domestic consumption, under the ordinary conditions of native life, was 16·9 gallons per head per day. This represented water drawn in all instances by manual labour and carried over varying distances, and it certainly would result, as experience elsewhere has shown, that when these difficulties were removed a large increase would be required."

During the year, water-supply works were completed and opened at Trichinopoly and Dindigul ; similar works were in progress in Conjeeveram and Kurnool ; and schemes for Negapatam and Conoor were being prepared.

It seems that the water-supply works actually in use are not in all cases quite satisfactory, a state of affairs due, apparently, to defective supervision on the part of the Municipal authorities. The following paragraph quoted from the report of the Sanitary Engineer touches on this matter :—

“ The works in operation at Ádóni, Cuddapah, Madura and Tanjore were maintained in charge of the Council throughout the year. Those at Dindigul were handed over to the Council in September 1896, and those at Trichinopoly in October 1896.

The following were visited during the year by the Sanitary Engineer, *viz.*, Cuddapah, Dindigul, Tanjore and Trichinopoly, and Ádóni by the Assistant Sanitary Engineer.

It cannot be said that the result of the maintenance by the Council is altogether satisfactory. In the first place there is no professional knowledge on the part of the Chairmen, and they naturally look with suspicion on requests, the necessity for which they do not understand, feeling themselves more or less at the mercy of the engine-drivers and overseers in charge. Fuel stock in some places has been allowed to go much too low, and there is, in certain towns, a tendency to unduly reduce fuel consumption to save money. The proper class of oil has not always been supplied when required. Leave has not always been obtainable by the engine-drivers, except under conditions which did not allow of them availing themselves of it. At Ádóni the overseer was removed to other duty, and the water delivered to the town was almost undrinkable in consequence of the wrong working of the filters.

There was no detailed inspection of engine and boilers, as the Boiler Inspector was not appointed during the year ”.

A scheme for sewerage Madras received the sanction of Government, and preliminaries regarding the erection of incinerators for the disposal of rubbish have been settled. Considerable progress was made in the preparation of a drainage scheme for Cuddapah. Pending the introduction of drainage schemes into the municipal towns, efforts are being made by the Sanitary Commissioner to improve and extend existing methods of sewage disposal, and he appears to have achieved a considerable measure of success in certain of the towns. The total sum realized by Municipal Councils from the sale of night-soil and town rubbish, which in 1895 was R24,755, rose to R28,484.

The movement inaugurated in 1894, on the advice of Dr. King, to obtain properly taught sanitary inspectors is progressing favourably. Fifty-two men obtained certificates in 1896 ; and the entertainment of at least one trained man has been made compulsory in each municipality. Twenty-eight Councils employ certificated Sanitary Inspectors. Four are employed by District Boards, and provision has been made in the budget for 1897-98 for the entertainment of five others. Meanwhile well educated men are coming forward for the special course of instruction.

The total estimated income of the District Boards in 1896-97 was R79,67,830, of which 8·4 per cent. was allotted to sanitary works, which shews a falling off, as compared with 1895-96, when 9·2 per cent. of the slightly higher total income was set aside for sanitary purposes. The decrease is due to curtailment of expenditure under the heads of education, medical relief and sanitation in favour of the upkeep of improved communications. The expenditure on education is said to be more or less fixed, so that sanitation goes to the wall. On the other hand, the more judicious expenditure of the funds provided for conservancy has been ensured, and the tendency of unions to regard the fitting up of lamps as the most important call upon their income, successfully curbed.

219. The Sanitary Board was reconstituted during the year, and now
Sanitary Board. consists of three members and a secretary—

President.—The Chief Engineer and Secretary to Government in the
Department Public Works.

Members.—{ The Surgeon-General with the Government.
A member of the Civil Service.

Secretary.—The Chief Assistant to the Chief Engineer.

The Sanitary Commissioner and the Sanitary Engineer are no longer members of the Board and are restricted to purely executive professional work. It is provided that no sanitary work estimated to cost more than ₹200, exclusive of the cost of site, shall be undertaken without the previous sanction of the Board.

During the year, the Board scrutinised plans and estimates for 72 municipal, and 87 local fund, works estimated to cost in the aggregate ₹2,75,331.

220. The total sum expended on original works in the municipalities in Coorg
Coorg. in 1896, was ₹4,935, the greater part of which was spent on a new lying-in hospital and drains in Mercara, and on the construction of a tank in Somvarpet.

The Department of Public Works also constructed a new well and improved and repaired others at a total cost of ₹432. The only scheme of importance in contemplation is that for the water-supply of Virajendrapet, for which a sum of ₹500 was placed at the disposal of the Executive Engineer to meet the cost of a preliminary survey.

Sanitary Board. 221. The Board met four times, and, among other matters, considered:—

(1) Rules for the better sanitation of Coorg. It was resolved that rules should be framed, and submitted to the Local Government for sanction. It will not, it is stated, be possible to introduce such rules into all villages, as there are comparatively few of the sweeper caste in the province.

(2) A rough estimate for the water-supply works of Virajendrapet was submitted by the Executive Engineer. The sum of ₹75,610 was considered beyond the means of the municipality, and it was resolved to ascertain whether the amount could not be reduced to ₹50,000.

(3) The erection of coolie shelters on the Ghats. The President informed the members that ₹2,400 had been collected, that ₹600 more were expected, and that Government had sanctioned the grant of a sum equivalent to that collected, besides supplying the necessary timber free of cost. The selection of sites was decided, and it was hoped that the shelters would be ready for occupation before the bursting of the monsoon of 1897.

222. Excluding the presidency town, the total income in 1895-96 of the 168
municipal towns in Bombay was ₹55,22,074,
Bombay. against ₹47,49,303 in the previous year. A sum of

₹25,01,157, equal to 45·29 per cent., was allotted to sanitary works. As in 1894-95, the expenditure under every head was less than the allotment, but the actual sums spent were considerably larger than in that year;—on water-supply, ₹6,47,329, against ₹4,96,543; on conservancy, ₹11,06,662, against ₹8,69,219;

and, on improvement of town sites, ₹2,22,905, against ₹2,15,979. The income of the District Boards was ₹40,05,823. Although the income was higher, the allotment for sanitation was less than in 1894-95, and the whole allotment was not spent. The sum assigned to sanitary works was ₹6,85,851, and only ₹4,71,536 were spent, chiefly upon the improvement of water-supplies, which absorbed ₹4,27,758.

The Bombay Village Sanitation Act has been introduced into every district, except Kanara and Upper Sind Frontier, and is now in force in 222 villages, including 59, in which it was brought into force in 1896. No new sanitary work of capital importance was begun during the year, and progress, generally, seems to have been retarded, chiefly on account of famine, but partly on account of the apathy or obstruction of Municipal Councils.

Progress was made with the water-supply works at Yeola, Surat and Ahmednagar, and improvements were carried out at Hyderabad. A survey of the town of Belgaum was made by an engineer employed by the municipality, and a water-supply project is being prepared by him under the advice of the Sanitary Board. Water-supply projects for Akalkot, Nasik, Viramgam, Hubli, Gadag, Dohad and Dakor were under consideration. Estimates for surveying the town of Sholapur, and the preparation of a plan and estimate for a drainage scheme for the western portion of that town, were sanctioned by Government. A drainage scheme for Sukkur was completed, but it was shelved by the Municipal Council. Drainage schemes for Hubli and Gadag were under discussion.

223. The number of meetings of the Board is not mentioned, but they seem to have done a great deal of useful work during the year. Among other matters, they advised regarding the water-supply schemes of Surat and Rander, Malegaon and Islampur, and furnished a report on the water-supply works of Satara.

Sanitary Board.

At Satara the filters may possibly be insufficient, but they are not properly worked, the means of distribution is very faulty and even dangerous, and there is no check on the expenditure incurred. The supervision of the works, it appears, is altogether inefficient, and the water supplied was reported unfit for drinking, whenever it was analysed, except in August. The Board advised the proper completion of the distribution system, the construction of filter-beds and a pure-water reservoir, and the delegation of the supervision of the Kos tank and supply channel to the Executive Engineer.

Regarding the attitude of Municipal Councils the Board write as follows :—

“ Finally we would urge that Government should, from time to time, recognise, in some substantial manner, by suitable titles of honour, any special exertions made by a prominent member of a municipality in pushing on water-supply and drainage schemes. Owing to the conservatism of natives, to their great objection to direct taxation, and to the tendency of the Municipal Commissioners, generally, to subordinate public to private interests, the position of any Commissioner who takes up sanitary improvement is a thankless and laborious one; and yet, without some one taking up the matter seriously, and pressing it continuously for a long time, it is hopeless to expect any municipality to overcome its own *vis inertia*. Where there is a question of a municipal appointment which might be got for a friend or relation, or where there is a possibility of appropriating municipal funds for a school, or something of that sort, every Commissioner will attend; but when it is a matter of public health, or sanitary improvements, even a quorum can seldom be got, unless it is a question of taxation, when again there will be a full meeting to *oppose* it. There are probably not half a dozen non-official Municipal Commissioners in the Presidency who have seriously taken up this unprofitable and almost hopeless task; and unless their exertions are in some way recognised, and influentially supported, it is only to be expected that they will fall off; and those Commissioners, who might possibly in

time be influenced by these exertions, will prefer to cast in their lot with the popular role of passive obstruction to sanitation, varied by occasional theoretic discussions."

224. The aggregate income of the various district and municipal funds in Burma, in 1896, was ₹71,10,986, of which ₹24,59,584, or nearly 35 per cent., was devoted to sanitary works of one kind or another, distributed as follows: to water-supply, ₹5,53,609; to conservancy, ₹5,74,335; to drainage, ₹3,60,505; and to "other sanitary works", ₹9,71,135.

No new work of any magnitude has been undertaken and the following notes regarding the chief towns refer to work in progress rather than to new projects.

In Rangoon, the water-supply continues to occupy attention. The existing supply, although sufficient for present requirements in years of ample rainfall, is of bad quality, and is liable, not only to extensive vegetable pollution, but, as the number of people living on the catchment area is increasing, to contamination of a more dangerous kind; and should the rainfall be deficient, there would be serious scarcity. Deep borings have shewn that supplies from subterranean sources, at a depth of 200 to 300 feet, are ample in quantity, and, in some cases, of good quality; but, so far, experiments conducted under the supervision of an expert from England, have not proved successful, and, of the various other schemes for increasing the supply that have been suggested, the most feasible is said to be the construction of a new lake in the neighbourhood of Thameing.

Sewage is removed on the Shone and Ault system, and most of the houses in the town are now connected; while, in the suburbs, the contents of latrines are removed to depôts connected with the sewers. Regarding the efficiency of the system, the following remarks, taken from the report on the working of the Rangoon Municipality, are of general interest:—

"Both the Municipal Engineer and the Health Officer report favourably on the Shone system of sewerage. The system is fully adopted in the *town* between Judah Ezekiel Street and Godwin Road; in Lanmadaw sewers have been laid, but house connections are not insisted upon, therefore only a partial benefit is derived. In the *town* east of Godwin Road there are 2,724 house connections and, consequently, the system is thoroughly efficient. No blockages of any kind occurred in the mains, and it is not thought at all likely that any blockage will ever occur in them. The engines and air-compressors have also given complete satisfaction; the addition of plumper blocks outside each fly-wheel has added to the efficiency of the engines, as they have enabled them to be worked more steadily and at a higher rate of speed.

During the year 624,048,000 gallons of sewage were ejected at a cost of 1 anna 8½ pies per 1,000 gallons, which is a moderate rate. The Shone system in Rangoon has now been worked for years; it has stood the test of time and has withstood criticism both interested and disinterested. Its benefit to Rangoon is incalculable and can only be appreciated by those who lived in the *town* prior to 1890, and had to submit to the foul nuisances which then abounded in every street, and who had in the hottest night to keep every window closed or allow their houses to be rendered almost uninhabitable by the awful stench from passing night carts. The Committee of 1886, with a much smaller revenue than is now available, showed considerable courage in embarking upon an expenditure of 30 lakhs for a drainage scheme on a system which, until then, had not been tried on so large a scale, but the result has been a complete justification of the course the Committee then took, and the inhabitants of Rangoon owe a debt of gratitude to those who, in spite of considerable opposition, gave Rangoon a drainage scheme on a system that by its satisfactory working has proved a complete boon."

The reclamation, on a great scale, of low swampy lands on the east of the town, continues in progress.

In Moulmein, a report on a water-supply scheme was considered by the Municipal Committee, but, although it was generally approved, some details require remodelling, and the loan of the services of an officer to do this has been asked from the Local Government.

At Prome, the filter-gallery connected with the pumping-station got out of order, and the Superintending Engineer of the Irrigation Department inspected it, in order to ascertain what alteration is required. In the meantime, water was taken direct from the river through a strainer, at a point which was considered by the Health Officer to be too near the bank.

At Bassein the question of a general water-supply is engaging attention. Experimental borings have been made, and water obtained from a depth of 280 feet, but not of good quality. The night conservancy scheme has been extended, and no cess-pits now exist within the limits served, except those on the banks of creeks. The contents of 535, public and private latrines, are removed daily in covered buckets and air-tight conservancy boxes, on tram trucks, to Pandingôn, situated about half a mile from the town, and there trenched.

At Mandalay, no water-supply scheme has, as yet, been undertaken. Experimental wells sunk in an old bed of the Irrawaddy to the north of the city yielded very hard water, and a scheme, to obtain water from the river near Amarapoora, is now being considered. The objection to this scheme is the liability to pollution from surface drainage of the town—a liability which will increase as drainage improves.

Except in remote districts, village sanitary inspection registers have been introduced, and after certain modifications in the form of the registers, shewn by experience to be requisite, have been made, good results of their use may be expected.

225. The Sanitary Board met once during the year and, with reference to a communication from the Local Government, made at the instance of the Government of India, resolved that, as eleven of the towns in the province were provided with complete maps, the time had come to appoint a Sanitary Engineer.

Appendix A to Section IX.

RESOLUTION.

SANITATION DEPARTMENT.

Dated Naini Tal, the 14th September 1896.

READ—

- (1) Resolution No. $\frac{27}{V-10B}$, dated 9th February 1889, in the Sanitation Department.
- (2) Resolution No. $\frac{42}{V-10B}$, dated 6th March 1890, in the Sanitation Department.
- (3) Resolution No. $\frac{561}{V-10B}$, dated 21st December 1893, in the Sanitation Department.

OBSERVATIONS.—In the first of the Resolutions read in the preamble, the Government of these provinces explained the manner in which it proposed to give effect to the wish of the Government of India that for the furtherance of sanitary reform and for the guidance of local executive agencies in urban and rural areas a Sanitary Board should be appointed in each province, which should supervise and control all sanitary works in progress or projected; should initiate and direct the sanitary survey of each municipal and rural area; and should devise such simple rules for the improvement of village sanitation as experience might show to be necessary and practicable. The Sanitary Board established in these provinces by the Local Government, in pursuance of this policy, was tentatively constituted as a consultative and not as an executive agency. It was charged with the duty of instituting a sanitary survey of the province, and especially of ascertaining the localities in which the presence of canals or railway systems made large schemes of drainage necessary. It was required to report on the best methods of introducing sanitary reforms in rural areas; and it was made the referee and adviser of Government on all questions specially remitted to it for opinion by the Government, the Sanitary Commissioner, or Commissioners of Divisions.

2. The Board thus constituted has done useful work. It has assisted the Government in improving the provincial system of mortuary and birth registration. It has reported from time to time on the drainage requirements of the country. It prepared the first draft of a village sanitation Bill which eventually was enacted by the Provincial Legislative Council, and it framed the rules by which effect is given to the Act. This Act marks the first stage in the improvement of the sanitary condition of rural areas. But it is as yet in force in only eight districts, and even in those districts it can be applied only to villages with a population of 2,000 and upwards. The general problem of rural sanitation is scarcely touched by it, and the preliminary measure of a detailed sanitary survey of each district has not even been commenced. The time has come, in the Lieutenant-Governor's opinion, for a fresh advance on the lines of the policy laid down by the Government of India in its Resolution of 27th July 1888. His Honor has therefore decided to strengthen the Provincial Sanitary Board, and to increase its powers; and he proposes to create, as time goes on and funds become available, an efficient sanitary agency in each district, to co-operate with the Sanitary Board.

3. With regard to the Sanitary Board, the following rules, which will take effect from the 1st November next, will regulate its constitution, procedure, and powers:—

I.—The Sanitary Board of the North-Western Provinces and Oudh shall consist of the following permanent members, of which three shall form a quorum:—

- (1) The Inspector-General of Civil Hospitals *President.*
- (2) One of the two Secretaries in the Department of Public Works as the Lieutenant-Governor may from time to time nominate.
- (3) The Sanitary Commissioner.
- (4) The Sanitary Engineer *Secretary.*

II.—The Board, in addition to such meetings as may be needed for the despatch of ordinary business, shall sit once a year in each revenue division, and, when sitting in a division, shall have as additional members—

- (a) Commissioner of the Division.

- (b) The District Magistrate } of the district whose sanitary business is being considered at the time.
 The Civil Surgeon }
 The District Engineer }
 A delegate from the District Board }

When the sanitary business of a municipality, is under consideration, a delegate from the Municipal Board and the Municipal Engineer (if any) shall take the place of the District Board's delegate and the District Engineer.

III.—The Board shall keep minutes of their proceedings, and these will form the basis of a chapter in the Sanitary Commissioner's Annual Report.

IV.—At the commencement of each year the permanent section of the Board shall draw up a programme for the year, fixing the dates and places of meeting, and notifying any important subjects which may be for consideration in each division. It will not be possible to notify beforehand the detailed proposals which district authorities may have to bring forward. References from Government in local sanitary matters will be considered at these meetings, and plans adopted.

V.—Under rules about to be issued to define the procedure of Municipal Boards with regard to the preparation and execution of public works projects, the Sanitary Board will be the adviser of the Commissioner of the Division as to whether administrative sanction should be given or withheld when projects of a sanitary character are submitted to him for sanction. With regard to sanitary works undertaken by District Boards, the Sanitary Board will give administrative sanction to all works towards the cost of which it may contribute from funds placed by Government at its disposal for this purpose. It will also advise the Commissioner of the Division as to giving or withholding administrative sanction to all other projects of a sanitary nature proposed to be executed out of the District Board funds alone when the estimated cost exceeds Rs1,000 and does not exceed Rs10,000.

These rules, it is hoped, will bring the Sanitary Board into close relations with the district administration, and enable it to supervise and guide the general progress of rural sanitary reform.

4. The next step is to lay down the lines on which the executive sanitary agency in each district should work. As regards this agency, the chief sanitary officer of each district will be, as he is at present, the Civil Surgeon. He has now at his disposal the subordinate staff of the Vaccination Department from the Assistant Superintendent downwards, and he may utilize their services for sanitary work throughout the district so far as their vaccination duties and their qualifications permit. But it must be admitted that the subordinate staff of the Vaccination Department at present know little or nothing of sanitation, and that in this regard small help can be expected from it. If sanitary progress is to be made in rural villages, the *personnel* of the staff must be improved. Measures are contemplated which will strengthen this staff and make it more competent for the combined work of vaccination and rural sanitation. In the larger districts, where the duties of the Civil Surgeon are heavy and multifarious, it is proposed at once to give him the services of an Assistant Surgeon as Sanitary Assistant, and the intention is eventually to post such an officer to each district. Financial reasons may for some time compel the Civil Surgeons of the smaller districts to dispense with this special assistance, but it is thought that without it some progress may be made in the preliminary work of a detailed sanitary survey of rural areas, with the co-operation of the revenue district staff under the orders of the Collector. In view of the increased attention which under such a survey mortuary and birth registration will require, it may be necessary to give the Civil Surgeon more clerical assistance in this branch than he has at present. The Sanitary Board will be consulted on this point.

5. The first step in the sanitary survey of a district is to group the villages, for purposes of detailed and continuous observation into smaller registration areas than the present *thána* circles. The sub-circles thus to be formed in each existing rural circle are intended exclusively for district sanitary work; for all statistics returned to the Sanitary Commissioner the *thána* circle will remain the unit. In forming the sub-circles the following rules should be observed:—

- (1) Municipalities, cantonments, and Act XX towns will be excluded as they already form separate units.

- (2) A sub-circle should, if this be possible consistently with the provisions of rule (4), contain not less than 10,000 and not more than 15,000 inhabitants, the lower limit being suitable for sparsely inhabited and the higher for populous tracts.
- (3) A sub-circle should be compact and, so far as possible, homogeneous in physical and hygienic character.
- (4) A sub-circle should not extend into two *thánas*.
- (5) A sub-circle, so far as is compatible with the preceding rules, should include entire *patwári* circles.
- (6) The sub-circles should be numbered, a single series of numbers for the whole district being used.

6. The Civil Surgeon, in blocking out these sub-circles, should consult the Collector, who, in giving the requisite assistance, will utilize the local knowledge of tahsildars and kanúngos and other members of the district staff. The object to be aimed at is to so group the villages of each *thána* that the grouped villages may present fairly like conditions of health, and the group represent a real unit. The mortuary and birth returns of groups so formed will have an import in connection with the localization of disease and insanitary conditions which those of existing *thána* circles cannot have, and the intelligent study of these returns by the Civil Surgeon and his Sanitary Assistant will be the first step in the direction of systematic sanitary reform in rural areas. An effort should be made to have the sub-circles blocked out and numbered in each district before the 31st December next, so that from the 1st January 1897 births and deaths in each *thána* may be recorded in separate registers for each sub-circle, and separately returned month by month for each sub-circle to the District Registrar. The Sanitary Commissioner will be asked to frame such subsidiary instructions as may be necessary for the guidance of circle registration officers. He will also be asked to say whether it would be possible to compile from the *thána* registers mortuary and birth statistics for each group for each of the past five years, so as to at once give the Civil Surgeon, as chief sanitary officer of the district, a basis of fact from which to work.

7. The investigation of the sanitary condition of each circle will follow. In districts to which it is found possible to attach a Sanitary Assistant to the Civil Surgeon, he will be employed by the latter as his chief inspecting officer. In these and other districts the Civil Surgeon will also utilize the Assistant Superintendent of Vaccination and his subordinates, and will have the assistance of the district staff, and all reports by the members of the staff on the sanitary condition of villages will be sent to him by the District Magistrate to be collated and recorded in a permanent register. It will be his duty to bring all these reports to a focus, and to work them up into a shape in which they may be submitted to the Sanitary Board. When worked up, the reports should be very brief and more in the form of notes on the various villages, under heads to be prescribed by the Board, than of descriptive narratives. For preparing these reports the Civil Surgeon may, as has been already remarked, require more clerical assistance than he has at present. An Assistant Magistrate in training, or other available member of the district gazetted staff, may be very usefully employed in aiding the Civil Surgeon in this connection.

8. The sanitary improvements which this investigation into the condition of rural areas may suggest will fall into two classes. The first class are those which concern the construction or repair of wells and tanks for drinking water and the drainage of the village site, and which require some expenditure of money. The second are those which merely involve the observance of simple sanitary rules or the exercise of a little energy on the part of owners and occupiers of the village. The funds for the first class of improvements will be provided by the District Board; by grants-in-aid from the Sanitary Board within the limits of the sum which Government may be able annually to assign to that body; by moneys leviable under the Village Sanitation Act; and by local contributions. The amount which a District Board can spare from its funds for rural sanitation may not, to begin with, be large; but some provision, however small, should, in future, under the proposed scheme of local finance, be made for this purpose in every District Board budget. The Local Government will, when the state of the finances permits, make an annual grant-in-aid of rural sanitation; and the Lieutenant-Governor and Chief Commissioner hopes that public liberality will also assist to the same end.

9. As regards the second class of improvements, which may generally be described

as connected with the preservation of the village water-supply from pollution and the village site from being befouled, these require nothing more than the observance of simple sanitary rules by the village community. Again, the filling up of pits and stagnant pools within the village site, the clearance of jungle from it, and the execution of simple repairs to wells and tanks by the persons owning or using them, require only the contribution of a little assistance in materials and labour, or the expenditure of a little labour which hurts no one and will, if the matter is gone about in the proper way, be willingly given. The appointment of places for the deposit of manure and household refuse, the regulation of burials and of the practice of offensive trades—these and similar matters will in due time, when village opinion is ripe, be brought to the notice of the village *panchayat*. At present the law does not empower the District Magistrate, except in the comparatively few villages to which the Village Sanitation Act has been extended, to enforce rules on these points. But much has been, and is being, done in many districts by persuasive executive action to introduce and render sanitary rules effective, and what the Lieutenant-Governor desires is that, pending the amendment of the law in this respect (should amendment eventually be found desirable), the District Magistrate and the District Board will co-operate with the Chief Sanitary Officer of the district in extending the observance in villages of simple sanitary rules, of proved utility. It will be open to the Provincial Sanitary Board to examine such rules and to suggest such improvements as experience may dictate. But here it may be said, for the Board's general guidance, that they should discourage rules and works which are not of a simple character. No attempt should be made to introduce the latrine system, and what is done, or attempted to be done, should be unpretentious, agreeable to the feelings and wishes of the people, and in general harmony with existing village practice.

10 The promotion of sanitation in municipalities will be equally within the functions of the Sanitary Board, and at its meetings the wants of municipal areas will be considered no less than of rural areas. But as municipal funds are fairly adequate to town wants, while the supply of money of rural sanitation must for many years fall short of the demand, no contribution should be made in aid of municipal resources from the funds placed at the Sanitary Board's disposal.

SECTION X. GENERAL REMARKS.

226. The following short summary of the main facts regarding the Red Sea pilgrim traffic in 1896 is taken principally from the Report forwarded by the Health Officer of the Port of Bombay.

Red Sea Pilgrim Traffic.

During the year there left Bombay for Jeddah, nineteen steam vessels of the usual class which provided accommodation, on the scale laid down by the Native Passenger Ships Act, for 14,478 adults. The total number of pilgrims who left Bombay, excluding 311 passengers for intermediate ports, was 14,167, comprising 13,230 adults, 764 children between one year and twelve years of age, and 173 infants. The average duration of the voyage, excluding detention at Camaran, was 14 days. The total number of pilgrims who were admitted to hospital while at sea was 271, and of these 49 died, including 18 whose deaths were ascribed to general debility, 3 of old age, 2 of small-pox, and 1 of choleraic diarrhœa.

The new Pilgrim Ship Act of 1895 was brought into force from the 6th of October 1896. This Act, among other provisions, requires that each pilgrim shall have six feet square of free space upon the upper deck, in addition to either 12 square feet on the 'tween decks, or 16 square feet on the orlop deck. To ensure thorough ventilation, it is also required that, besides hatches and scuttles, each pilgrim on the 'tween decks shall be provided with 5 square inches of ventilating opening and each pilgrim on the orlop-deck with 10 square inches. Five vessels left after the new Act came into force, but no pilgrims were carried on the orlop-decks.

The medical inspection of the pilgrims was carried out as usual, valuable assistance being rendered, especially after the new Act came into force, when the inspections were more tedious and complicated, by the officials of the Preventive and Police services.

The quarantine station at Camaran was opened on the 18th December 1895, and the usual quarantine of ten days was imposed on all pilgrim-ships arriving just prior to the Haj, which took place on the 23rd of May.

On the return voyage to Bombay there were engaged nineteen vessels providing accommodation, under the law, for 15,222 adult pilgrims. At Jeddah 11,133 pilgrims embarked, and at Camaran 63. At Aden and Karachi 1,363 pilgrims disembarked, and 9,697 were landed at Bombay.

As usual, the homeward voyages were much the more unhealthy. There were 365 admissions among the returning pilgrims and 136 deaths, including 34 from debility, 21 from senile decay, 19 from choleraic diarrhœa—against only one in the outward voyages, and 14 from chronic dysentery.

In 1896 the difference between the total number who went to the Hejaz and the number that returned was only 15 per cent. against 28 per cent. in 1895, and an average in former years of about 33 per cent.

No vessel left either Calcutta or Madras for the Hejaz, but the S. S. *Sultan* arrived in Calcutta from Jeddah on the 23rd of June. She had on board 1,112

pilgrims, and there had been 44 deaths during the voyage, including 13 from diarrhoea, 11 from lung diseases, and 7 from small-pox.

227. During the latter part of the year 1896 and the first few months of 1897, the work which was done in the laboratory attached to the office of the Sanitary Commissioner was

Researches by the Special Assistant.

mainly devoted to investigations into the question of the alleged occurrence of plague in Calcutta, and to the continued elucidation of certain points in connection with the physiological action of snake-venom, and the nature of the artificial immunity from it which is established under the influence of continued and cumulative introduction of the toxin into the animal organism.

Shortly after the existence of plague had been recognised in Bombay, it came to be currently believed that cases of the disease had been detected in Calcutta among both the civil and the military population. The observers, who were primarily responsible for the origin of this belief, did not affirm that they had any satisfactory clinical evidence for it, and founded their diagnoses solely on the results of microscopical examinations and cultivations of specimens of blood derived from the bodies of the suspected patients. The matter was one which, from its important bearing on mercantile interests, could not be allowed to remain undecided, and a careful investigation into the nature and value of the bacteriological evidence which had been adduced in regard to it was accordingly undertaken.

A series of type specimens of blood and hæmatic cultivations from suspected cases was accordingly procured and submitted to careful examination and comparison with specimens and cultivations prepared in the laboratory, and the data which were thus obtained were of a nature which appeared clearly to justify the conclusion that the bacteriological evidence which had been brought forward in support of the alleged prevalence of plague was entirely insufficient and fallacious. The grounds for this conclusion were the following:—

1. The schizomycete organisms which were present in the type specimens of blood were not invariably of the same nature.
2. In many instances they presented no morphological resemblance whatever to typical plague bacilli; in some they were unequivocally mere accidental contaminations of aërial origin; and, in others, what had been regarded as schizomycete organisms were apparently mere products of nucleoplastic disintegration.
3. The growth in the various type cultivations were not of any uniform character, and some cultivations contained growths of more than one kind of organism.
4. Specimens of blood taken under proper precautions from certain of the alleged cases of plague showed no evidence whatever of the presence of any intrusive schizomycetes; and corresponding cultivations entirely failed to yield any growths.
5. A very brief exposure of the blood of perfectly healthy animals to free contact with the air of the laboratory was sufficient to secure the subsequent appearance in them of a number of distinct forms of schizomycetes, some of which were absolutely identical in characters with those present in the type-specimens of blood and the type cultivations derived from the alleged cases of plague.

Full details in regard to the results of the experiments dealing with snake venom will appear in a forthcoming number of "Scientific Memoirs by Medical Officers of the Army of India", and, in the meantime, it may be sufficient to mention that they conclusively demonstrated that the artificial immunity attending repeated and cumulative injections of venom persists unimpaired throughout periods of many months' duration, and afforded additional evidence in support of the view that the phenomena attending intoxication by cobra-venom are primarily dependent on the occurrence of important changes in the constitution of the blood, and not on any direct action of a toxin upon the nervous apparatus.

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ANNUAL RETURNS
OF THE
EUROPEAN ARMY OF INDIA

OF THE
NATIVE ARMY AND OF THE JAIL
POPULATION

FOR THE YEAR

1896.



COMPILED AND SYSTEMATICALLY ARRANGED FROM THE ORIGINAL DOCUMENTS

BY

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NOTE.—Owing to the system of weekly returns at present in force for the army, the months mentioned in Tables VI—XIII, XX, XXI, XXIII, XXIV, XXIX, and XXXI—XXXVIII for troops are not calendar months, but 4-5 week periods.

For 1896 the months are divided as follows :—

January—from 1st January to 31st January.

February—from 1st February to 28th February.

March—from 29th February to 3rd April.

April—from 4th April to 1st May.

May—from 2nd May to 29th May.

June—from 30th May to 3rd July.

July—from 4th July to 31st July.

August—from 1st to 28th August.

September—from 29th August to 2nd October.

October—from 3rd October to 30th October.

November—from 31st October to 27th November.

December—from 28th November to 31st December.

In the jail tables, on the other hand, the months mentioned are calendar months, the returns being monthly returns.

TABLE G.

*Grouping of Diseases in the Main Tables for 1896.**

HEAD OF DISEASE.	Includes or includes also
CHOLERA	Sporadic Cholera.
INTERMITTENT FEVER	Malarial Cachexia.
SIMPLE CONTINUED FEVER	Febricula.
HEAT-STROKE	Sunstroke and Heat-Apoplexy.
ALCOHOLISM	Delirium tremens. Alcoholic Poisoning.
TUBERCLE OF THE LUNGS	Acute and Chronic Pneumonic Phthisis and Hæmoptysis, when due to tubercle.
OTHER RESPIRATORY DISEASES.	Includes Hæmoptysis and Cirrhosis of the Lung not due to tubercle and excludes Pneumonia and Acute and Chronic Pneumonic Phthisis of tuberculous character.
ANÆMIA AND DEBILITY	Old age (Tables for men and women). Immaturity at birth (Tables for children).
DIARRHŒA	Epidemic Diarrhœa.
HEPATIC CONGESTION AND INFLAMMATION.	Congestion of liver, Hepatitis, Perihepatitis; but excludes Cirrhosis of liver.
VENEREAL DISEASES	Primary syphilis, Secondary syphilis; Gonorrhœa, and Ulcer of the penis, which include also their sequelæ.
GUINEA-WORM AND	} The entozoa numbered from 1 to 66: also Nos. 93 and 94.
OTHER ENTOZOA	
PHAGEDÆNA, SLOUGH AND GANGRENE.	} Nomenclature of 1885, Nos. 25 <i>a</i> and <i>b</i> , 787, 813, and 854.
ABSCCESS, ULCER AND BOIL	
ABORTION AND PUERPERAL AFFECTIONS.	} Nomenclature of 1885, Nos. 812, 849, and 852.
OTHER DISEASES PECULIAR TO WOMEN.	
	} These two headings appear only in jail tables.
	} Nomenclature of 1885, Nos. 709 to 731, and any other diseases stated by medical officers to have been puerperal.
	} Nomenclature of 1885, No. 455, Vomiting of Pregnancy, Nos. 632 to 708, and Nos. 732 to 743.

* For detail of individual diseases see Table LIII.

I.—EUROPEAN TROOPS, 1896.

A. MEN.

TABLE D.

STATIONS by COMMANDS.

<p>BENGAL :—</p> <p>Fort William (Calcutta).</p> <p>Fort Fulta.</p> <p>Fort Chingrikhal.</p> <p>Dum-Dum.</p> <p>Barrackpore.</p> <p>Dinapore.</p> <p>Benares.</p> <p>Fyzabad.</p> <p>Lucknow.</p> <p>Sitapur.</p> <p>Fatehgarh.</p> <p>Cawnpore.</p> <p>Allahabad.</p> <p>Fort Allahabad.</p> <p>Shahjahanpur.</p> <p>Bareilly.</p> <p>Meerut.</p> <p>Delhi.</p> <p>Roorkee.</p> <p>Nowgong.</p> <p>Jhansi.</p> <p>Agra.</p> <p>Muttra.</p> <p>Jubbulpore.</p> <p>Saugor.</p> <p>Ranikhet.</p> <p>Chaubuttia.</p> <p>Chakrata.</p> <p>Darjeeling Convalescent Depôt.</p> <p>Naini Tal " "</p> <p>Landour " "</p> <p>Pachmarhi Sanitarium.</p>	<p>PUNJAB :—<i>contd.</i></p> <p>Meean Meer.</p> <p>Fort Lahore.</p> <p>Amritsar.</p> <p>Sialkot.</p> <p>Rawalpindi.</p> <p>Campbellpur.</p> <p>Attock.</p> <p>Nowshera.</p> <p>Peshawar.</p> <p>Mooltan.</p> <p>Dagshai.</p> <p>Solon.</p> <p>Subathu.</p> <p>Jutogh.</p> <p>Khyragully.</p> <p>Baragully.</p> <p>Kuldunnah.</p> <p>Kalabagh.</p> <p>Camp Gharial.</p> <p>„ Thobba.</p> <p>„ Lower Topa.</p> <p>Ghora Dhaka.</p> <p>Cherat.</p> <p>Kasauli Convalescent Depôt.</p> <p>Dalhousie " "</p> <p>Murree " "</p> <p>MADRAS :—</p> <p>Port Blair.</p> <p>Rangoon.</p> <p>Thayetmyo.</p> <p>Meiktila.</p> <p>Fort Dufferin (Mandalay).</p> <p>Shwebo.</p> <p>Bhamo.</p> <p>Belgam.</p> <p>Secunderabad.</p>	<p>MADRAS :—<i>contd.</i></p> <p>Cannanore.</p> <p>Calicut.</p> <p>Mallapuram.</p> <p>Madras.</p> <p>St. Thomas' Mount.</p> <p>Pallavaram.</p> <p>Bangalore.</p> <p>Bellary.</p> <p>Ramandrug.</p> <p>Bernardmyo.</p> <p>Wellington.</p> <p>Poonamallee Depôt.</p> <p>BOMBAY :—</p> <p>Hyderabad.</p> <p>Kurrachee.</p> <p>Nasirabad.</p> <p>Neemuch.</p> <p>Indore.</p> <p>Mhow.</p> <p>Ahmedabad.</p> <p>Deesa.</p> <p>Ahmednagar.</p> <p>Poona.</p> <p>Kirkee.</p> <p>Satara.</p> <p>Kamptee.</p> <p>Sitabaldi.</p> <p>Colaba (Bombay).</p> <p>Quetta.</p> <p>Taragarh Sanitarium.</p> <p>Mount Abu "</p> <p>Purandhur "</p> <p>Khandalla "</p> <p>Deolali Depôt.</p> <p>Aden.</p>
<p>PUNJAB :—</p> <p>Umballa.</p> <p>Jullundur.</p> <p>Ferozepore.</p>		

EUROPEAN TROOPS, 1896.

TABLE I.

RATIOS OF COMMANDS.

The ratios of admissions and deaths to strength are taken from Table III. The actuals will be found in Table IV.

					RATIO PER 1,000 OF THE AVERAGE STRENGTH.				
					Bengal Command.	Punjab Command.	Madras Command.	Bombay Command.	India.*
I.—STRENGTH					22,457	18,823	13,488	15,716	70,484
II.—CONSTANTLY-SICK-RATE OF EACH MONTH—									
January					102'4	99'5	106'3	86'9	98'8
February					96'4	91'0	98'0	94'4	94'9
March					97'4	85'4	98'3	93'9	93'6
April					99'3	76'0	94'3	93'6	90'8
May					99'6	82'8	94'6	88'6	91'7
June					98'7	83'4	98'3	88'4	92'2
July					99'8	90'0	102'9	90'3	95'7
August					104'6	84'1	100'8	101'8	97'7
September					105'1	83'6	101'1	103'3	98'1
October					98'0	80'0	101'3	93'3	92'7
November					101'7	78'9	96'4	94'1	92'8
December					99'5	72'3	96'0	80'2	87'2
OF THE YEAR					100'2	83'9	99'0	92'2	93'8
III.—ADMISSION-RATE OF THE YEAR—									
Influenza					16'0	6'7	22'6	1'1	11'5
Cholera					1'8	2	4	1'3	1'0
Small-pox					2'1	1'9	1'4	1'2	1'7
Enteric Fever					30'2	25'9	16'8	25'5	25'5
Intermittent Fever					229'7	257'8	108'1	342'3	239'0
Remittent Fever					14'5	19'4	9'4	10'1	13'9
Simple Continued Fever					33'0	26'0	48'3	14'7	30'0
Tubercle of the lungs					3'9	3'2	7'6	6'5	5'0
Pneumonia					5'1	7'5	3'3	4'3	5'2
Other Respiratory Diseases					24'2	30'4	24'5	24'7	26'0
Dysentery					35'3	13'9	35'7	19'5	26'1
Diarrhœa					21'4	23'5	9'7	23'2	20'1
Hepatic Abscess					3'2	1'4	1'6	2'2	2'2
" Congestion and Inflammation					21'8	12'2	35'4	19'3	21'3
Venereal Diseases					582'4	395'0	526'3	537'4	511'6
ALL CAUSES					1,435'9	1,282'4	1,336'1	1,484'7	1,386'7
IV.—DEATH-RATE OF THE YEAR—									
Cholera					1'47	1'16	44	1'34	89
Small-pox					1'13	1'11	15	1'19	14
Enteric Fever					7'70	6'11	4'23	6'36	6'31
Intermittent Fever					22	...	...	13	10
Remittent Fever					45	69	...	32	40
Simple Continued Fever . . . . .					...	...	...	...	...
Heat-stroke					85	1'06	30	38	70
Circulatory Diseases					76	27	37	57	51
Tubercle of the lungs					80	43	52	76	64
Pneumonia					58	1'12	15	57	64
Other Respiratory Diseases					4	...	15	38	13
Dysentery					85	37	59	83	67
Diarrhœa					4	...	...	...	61
Hepatic Abscess					2'09	85	82	76	1'22
ALL CAUSES					18'70	13'60	9'79	15'14	14'84
V.—PERCENTAGE IN 100 ADMISSIONS—									
Influenza					1'12	52	1'69	07	83
Cholera					13	01	03	09	07
Small-pox					15	15	11	08	12
Enteric Fever					2'11	2'02	1'26	1'72	1'84
Intermittent Fever					16'00	20'11	8'09	23'05	17'24
Remittent Fever					1'01	1'52	70	68	1'00
Simple Continued Fever					2'29	2'03	3'61	99	2'16
Tubercle of the lungs					27	25	57	44	36
Pneumonia					35	59	25	29	38
Other Respiratory Diseases					1'68	2'37	1'83	1'66	1'88
Dysentery					2'46	1'08	2'67	1'31	1'88
Diarrhœa					1'49	1'83	73	1'56	1'45
Hepatic Abscess					22	11	12	15	16
" Congestion and Inflammation					1'52	95	2'65	1'30	1'53
Venereal Diseases					40'56	30'80	39'39	36'19	36'89
VI.—PERCENTAGE IN 100 DEATHS—									
Cholera					7'9	1'2	4'5	8'8	6'0
Small-pox					7	8	1'5	1'3	1'0
Enteric Fever					41'2	44'9	43'2	42'0	42'5
Intermittent Fever					1'2	...	...	8	...
Remittent Fever					2'4	5'1	...	2'1	2'7
Simple Continued Fever . . . . .					...	...	...	...	...
Heat-stroke					4'5	7'8	3'0	2'5	4'7
Circulatory Diseases					4'0	2'0	3'8	3'8	3'4
Tubercle of the lungs					4'3	3'1	5'3	5'0	4'3
Pneumonia					3'1	8'2	1'5	3'8	4'3
Other Respiratory Diseases					2	...	1'5	2'5	9
Dysentery					4'5	2'7	6'1	5'5	4'5
Diarrhœa					2	...	...	...	1
Hepatic Abscess					11'2	6'3	8'3	5'0	8'2

* For complete detail of diseases see Table LIII.

† Worked on the aggregates.

EUROPEAN TROOPS, 1896.

TABLE II.

RATIOS of GEOGRAPHICAL GROUPS.

The ratios of admissions and deaths to strength are taken from Table III.

The actuals will be found in Table IV.

RATIOS PER 1,000 OF THE AVERAGE STRENGTH.

	I	II	IV	V	VI	VII	VIII	IX	X	XI	XIIa	XIIb	India.*
	Burma Coast and Bay Islands.	Burma Inland.	Bengal and Orissa.	Gange- tic Plain and Chutia Nagpur.	Upper Sub- Hima- layan.	N.-W. Frontier, Indus Valley, and N.-W. Rajpu- tana.	S. E. Rajpu- tana, Central India, and Gujarat.	Deccan.	Western Coast.	South- ern India.	Hill Stations.	Conva- lescent Depôts. and Sanita- ria.	
I.—STRENGTH	1,310	2,679	2,460	7,492	14,390	4,837	6,440	10,157	1,556	3,561	8,776	3,591	70,484
II.—†CONSTANTLY-SICK-RATE OF EACH MONTH—													
January	127'5	121'9	85'3	104'1	104'3	100'9	118'8	102'8	98'2	85'3	95'9	56'9	98'8
February	89'7	112'1	78'3	101'8	99'0	97'5	126'8	95'0	101'1	86'8	85'0	55'2	94'9
March	116'5	98'4	74'9	97'3	95'1	83'3	114'2	92'2	91'7	88'0	88'6	84'2	93'6
April	99'8	107'5	76'4	101'9	88'1	74'5	107'1	87'6	92'7	75'2	90'8	98'4	90'8
May	98'8	107'0	80'6	102'1	92'3	83'3	109'8	83'8	76'7	66'1	87'1	95'6	91'7
June	112'9	116'3	82'3	95'1	88'1	97'4	113'5	81'9	76'6	67'9	88'2	95'6	92'2
July	117'8	118'7	88'1	99'5	92'1	115'9	112'4	88'7	65'8	71'0	88'7	97'0	95'7
August	122'0	115'8	89'0	100'7	89'1	108'4	129'7	94'4	60'6	76'3	92'0	90'8	97'7
September	139'8	115'1	80'3	101'0	92'1	106'9	143'8	96'0	60'8	74'6	89'6	81'9	98'1
October	143'0	116'3	70'4	99'7	92'6	100'3	124'4	86'2	67'3	81'8	82'7	81'8	92'7
November	114'3	99'3	75'8	104'7	84'8	96'7	123'6	85'7	68'8	87'2	118'7	95'2	92'8
December	109'8	103'3	74'2	100'8	85'5	86'0	117'9	83'9	70'0	78'2	84'1	67'3	87'2
OF THE YEAR	115'7	110'9	79'6	100'7	92'3	95'1	120'1	89'7	78'2	78'4	89'6	88'5	93'8
III.—ADMISSION-RATE OF THE YEAR—													
Influenza	127'5	1'1	...	33'5	12'4	2'7	3'3	8'5	...	1'1	4'1	12'8	11'5
Cholera	'8	'4	1'2	1'9	'3	...	3'0	1'6	...	1'1	...	...	1'0
Small-pox . . . . .	...	'4	...	4'0	2'6	1'0	3'0	'4	...	4'8	'3	'6	1'7
Enteric Fever	13'0	4'5	18'3	40'0	19'8	23'8	30'4	23'1	17'4	16'0	47'2	10'3	25'5
Intermittent Fever	105'3	157'1	204'9	183'4	248'7	523'5	376'1	265'1	75'8	80'3	163'9	178'8	239'0
Remittent Fever	3'1	6'0	50'4	12'8	16'7	29'2	9'8	7'5	9'6	11'0	7'3	22'0	13'9
Simple Continued Fever	41'2	148'2	6'1	71'4	22'2	35'4	17'9	9'4	81'0	34'5	12'0	5'3	30'0
Rheumatic Fever . . . . .	...	1'1	'4	'3	1'4	1'2	'9	'3	...	1'1	3'1	'8	1'1
Tubercle of the lungs	2'3	3'7	3'7	3'1	3'1	2'9	3'6	7'7	'6	2'8	3'8	3'9	5'0
Pneumonia	3'1	3'4	'4	3'6	8'5	8'1	5'4	3'3	1'3	4'5	4'1	3'1	5'2
Other Respiratory Diseases	33'6	22'4	15'0	20'6	30'7	27'9	38'5	25'4	18'0	16'6	22'8	24'8	26'0
Dysentery	58'0	26'1	66'3	38'0	15'9	15'7	17'4	32'1	9'0	34'0	17'7	22'6	26'1
Diarrhœa	13'7	16'4	30'1	16'9	18'1	21'7	25'5	13'4	23'8	5'6	32'9	29'2	20'1
Hepatic { Abscess	1'5	1'1	6'5	2'9	1'7	1'4	2'0	2'4	'6	2'0	1'1	3'3	2'2
Congestion	58'0	53'4	20'7	21'4	13'1	10'8	25'6	23'5	9'0	30'6	15'2	17'0	21'3
Inflammation	546'6	547'6	494'7	534'2	487'0	436'4	688'7	547'3	419'7	500'4	478'5	387'9	511'6
Venereal Diseases	1,468'7	1,593'5	1,302'4	1,393'6	1,340'7	1,669'2	1,756'4	1,317'3	1,110'5	1,208'9	1,269'1	1,196'6	1,386'7
ALL CAUSES													
IV.—DEATH-RATE OF THE YEAR—													
Cholera	'76	'37	1'22	1'07	'21	...	2'64	1'58	'64	1'12	...	...	'89
Small-pox . . . . .	...	...	...	...	'28	...	'47	...	...	'56	'11	...	'14
Enteric Fever	1'53	'37	4'07	11'61	5'21	5'79	8'39	6'01	10'28	5'34	8'20	3'62	6'31
Intermittent Fever . . . . .	...	...	1'63	...	...	'16	'16	'10	...	...	...	'28	'10
Remittent Fever . . . . .	...	...	1'22	'13	'69	1'03	'16	'10	...	...	'34	'84	'40
Simple Continued Fever . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Heat-stroke . . . . .	...	'37	'41	1'20	1'18	1'86	1'09	'30	...	...	...	...	'70
Circulatory Diseases	'76	'37	'81	1'07	'14	'62	'47	'30	1'29	'84	'34	'84	'51
Tubercle of the lungs	'76	'37	'41	1'07	'56	'41	'62	'49	1'29	'28	'46	'56	'64
Pneumonia	'76	...	...	'27	1'39	1'24	'93	'69	...	...	'23	'28	'64
Other Respiratory Diseases . . . . .	...	...	...	...	...	...	'47	'10	...	'28	'11	'56	'13
Dysentery	2'29	'75	1'63	'53	'42	'41	'47	1'38	1'93	...	'11	1'11	'67
Diarrhœa . . . . .	...	...	...	...	'07	...	...	...	...	...	...	...	'01
Hepatic Abscess	1'53	'75	3'66	2'14	'76	1'03	'93	1'28	...	1'12	'91	2'51	1'22
ALL CAUSES	11'45	5'60	17'07	22'42	13'83	14'47	19'72	14'67	17'99	11'23	12'53	12'53	14'84
V.—PERCENTAGE IN 100 ADMISSIONS—													
Influenza	8'68	'07	...	2'40	'93	'16	'19	'64	...	'09	'32	1'07	'83
Cholera	'05	'02	'09	'13	'02	...	'17	'12	...	'09	...	...	'07
Small-pox . . . . .	...	'02	...	'29	'19	'06	'17	'03	...	'39	'03	'05	'12
Enteric Fever	'88	'28	1'40	2'87	1'48	1'42	1'73	1'76	1'56	1'32	3'72	'86	1'84
Intermittent Fever	7'17	9'86	15'73	13'16	18'55	31'36	21'41	20'13	6'83	6'64	12'91	14'94	17'24
Remittent Fever	'21	'37	3'87	'92	1'24	1'75	'56	'57	'87	'91	'57	1'84	1'00
Simple Continued Fever	2'81	9'30	'47	5'12	1'65	2'12	1'02	'71	7'29	2'86	'94	'44	2'16
Rheumatic Fever . . . . .	...	'07	'03	'02	'10	'07	'05	'02	...	'09	'24	'07	'08
Tubercle of the lungs	'16	'23	'28	'22	'23	'17	'20	'58	'06	'23	'30	'33	'36
Pneumonia	'21	'21	'03	'26	'64	'48	'31	'25	'12	'37	'32	'26	'38
Other Respiratory Diseases	2'29	1'41	1'15	1'47	2'29	1'67	2'19	1'93	1'62	1'37	1'80	2'07	1'88
Dysentery	3'95	1'64	5'09	2'73	1'19	'94	'99	2'44	'81	2'81	1'39	1'89	1'88
Diarrhœa	'94	1'03	2'31	1'22	1'35	1'30	1'45	1'02	2'14	'46	2'59	2'44	1'45
Hepatic { Abscess	'10	'07	'50	'21	'12	'09	'11	'18	'06	'16	'09	'28	'16
Congestion	3'95	3'35	1'59	1'53	'98	'64	1'46	1'79	'81	2'53	1'19	1'42	1'53
Inflammation	37'21	34'36	37'98	38'33	36'33	26'15	39'21	41'55	37'79	41'39	37'70	32'42	36'89
Venereal Diseases													
VI.—PERCENTAGE IN 100 DEATHS—													
Cholera	6'7	6'7	7'1	4'8	1'5	...	13'4	10'7	3'6	10'0	...	...	6'0
Small-pox . . . . .	...	...	...	...	2'0	...	2'4	...	...	5'0	'9	...	1'0
Enteric Fever	13'3	6'7	23'8	51'8	37'7	40'0	42'5	40'9	57'1	47'5	65'5	28'9	42'5
Intermittent Fever . . . . .	...	...	9'5	...	...	...	'8	'7	...	...	...	2'2	'7
Remittent Fever . . . . .	...	...	7'1	'6	5'0	7'1	'8	'7	...	...	2'7	6'7	2'7
Simple Continued Fever . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Heat-stroke . . . . .	...	6'7	2'4	5'4	8'5	12'9	5'5	2'0	...	...	...	...	4'7
Circulatory Diseases	6'7	6'7	4'8	4'8	1'0	4'3	2'4	2'0	7'1	7'5	2'7	6'7	3'4
Tubercle of the lungs	6'7	6'7	2'4	4'8	4'0	2'9	3'1	3'4	7'1	2'5	3'6	4'4	4'3
Pneumonia	6'7	...	...	1'2	10'1	8'6	4'7	4'7	...	...	1'8	2'2	4'3
Other Respiratory Diseases . . . . .	...	...	...	...	...	...	2'4	'7	...	2'5	'9	4'4	'9
Dysentery	20'0	13'3	9'5	2'4	3'0	2'9	2'4	9'4	10'7	...	'9	8'9	4'5
Diarrhœa . . . . .	...	...	...	...	'5	...	...	...	...	...	...	...	'1
Hepatic Abscess	13'3	13'3	21'4	9'5	5'5	7'1	4'7	8'7	...	10'0	7'3	20'0	8'2

* For complete detail of diseases see Table LIII.

† Worked on the aggregates.

EUROPEAN TROOPS, 1896.

TABLE III.

RATIOS of STATIONS, GROUPS and COMMANDS.

For actuals see Table IV.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.
Port Blair.	143 {	...	...	...	7'0	90'9	...	307'7	...	...	7'0 6'99	7'0	...	14'0	14'0	...	7'0 6'99	14'0	167'8	944'1 13'99	32'8	7'0	7'0	49'0	104'9
Rangoon.	1,167 {	143'1	'9 86	...	13'7 1'71	107'1	3'4	8'6	...	...	16'3	1'7 86	3'4 86	36'0	63'4 2'57	15'4	'9 86	63'4	693'0 86	1633'0 11'14	125'8	223'7	...	102'0	367'4 86
GROUP I.— BURMA COAST AND BAY ISLANDS	† 1,310 {	127'5	'8	...	13'0	105'3	3'1	41'2	...	...	15'3	2'3	3'1	33'6	58'0	13'7	1'5	58'0	546'6	1468'7	* 115'7	200'0	'8	96'2	249'6
		...	'76	...	1'53	...	...	...	...	...	'76	'76	'76	...	2'29	...	1'53	...	'76	11'45	...	...	...	...	'76
Thayetmyo.	541 {	...	...	...	...	134'9	5'5	234'8	...	1'8	...	1'8	3'7	44'4	9'2	...	1'8 1'85	44'4	597'0	1700'6 1'85	105'5	321'6	1'8	101'7	171'9
Meiktila.	397 {	...	...	2'5	...	191'4	...	...	...	2'5	...	2'5	...	2'5	2'5	17'6	...	25'2	644'8	1272'0	118'1	241'8	12'6	120'9	269'5
Fort Dufferin.	1,027 {	1'9	1'0 97	...	2'9 97	17'5	11'7	261'0	1'0	8'8 97	12'7 97	3'9	3'9	19'5	31'2 1'95	18'5	1'9 97	78'9 97	418'7	1513'1 8'76	108'8	175'3	45'8	75'0	122'7
Shwebo.	472 {	2'1	...	...	19'1	110'2	...	4'2	2'1	...	10'6	4'2	2'1	14'8	44'5	16'9	...	57'2	726'7	1593'2 2'12	110'3	322'0	...	118'6	286'0
Bhamo.	241 {	...	...	...	...	838'2	4'1	...	4'1	...	...	8'3 4'15	8'3	33'2	45'6	41'5	...	4'1	477'2	2232'4 16'60	120'9	232'4	...	132'8	112'0
GROUP II.— BURMA IN- LAND.	† 2,679 {	1'1	'4 37	'4	4'5 37	157'1	6'0	148'2	1'1	4'5	6'7	3'7	3'4	22'4	26'1	16'4	1'1	53'4	547'6	1593'5	* 110'9	245'6	19'8	100'0	182'2
		...	'37	...	'37	...	...	...	...	'37	'37	'37	...	...	'75	...	'75	'37	...	5'60	...	...	...	...	...
Fort William.	1,049 {	...	1'9 1'91	...	9'5 3'81	118'2 2'86	92'5	...	...	2'9 95	18'1 95	5'7 95	1'0	23'8	72'4 2'86	36'2	3'8 95	17'2	516'7	1404'2 16'21	99'5	120'1	73'4	87'7	235'5
Fort Fulta.	31 {	...	...	...	...	322'6	...	...	...	32'3	...	...	...	32'3	32'3	...	...	...	322'6	1064'5	5'5	...	64'5	...	258'1
Fort Chingrikhal.	42 {	...	...	...	...	119'0	...	...	23'8	...	...	...	...	...	23'8	...	...	...	666'7	1095'2 23'81	7'1	190'5	166'7	142'9	166'7
Dum-Dum.	981 {	...	...	...	10'2 4'08	131'5	27'5 3'06	15'3	...	...	12'2 1'02	3'1	...	7'1	30'6 1'02	23'4	7'1 4'08	26'5	442'4	955'1 15'29	58'0	64'2	142'7	108'1	127'4
Barrackpore.	358 {	...	2'8 2'79	...	69'8 5'59	659'2 2'79	...	...	...	...	...	...	...	11'2	153'6	36'3	14'0 11'17	19'6	567'0	1997'2 25'14	95'4	53'1	122'9	111'7	279'3
GROUP IV.— BENGAL AND ORISSA.	† 2,460 {	...	1'2	...	18'3	204'9	50'4	6'1	'4	1'6	12'6	3'7	'4	15'0	66'3	30'1	6'5	20'7	494'7	1302'4	* 79'6	87'8	109'8	99'2	198'0
		...	1'22	...	4'07	1'63	1'22	...	...	'41	'81	'41	...	...	1'63	...	3'66	...	...	17'07	...	...	...	...	...
Dinapore.	806 {	...	2'5 1'24	1'2	7'4 1'24	141'4	12'4	...	...	1'2	9'9 1'24	2'5	2'5	21'1	29'8	8'7	1'2 1'24	31'0	800'3	1382'1 8'68	100'5	493'8	...	107'9	198'5
Benares.	437 {	11'4	27'5 16'02	...	123'6 20'59	91'5	11'4 2'29	407'3	...	...	13'7	...	2'3	22'9	54'9	52'6	2'3 2'29	6'9	402'7	1672'8 43'48	93'9	41'2	105'3	68'6	187'6
Fyzabad.	1,003 {	18'9	...	...	38'9 12'96	190'4	...	5'0	...	3'0 1'99	20'9 1'00	4'0 1'00	6'0 1'00	12'0	58'8	16'9	6'0 3'99	15'0	669'0	1506'5 23'93	106'1	251'2	13'0	151'5	253'2
Lucknow.	2,498 {	90'9	...	2'0	22'8 8'41	222'6	26'4	96'1	...	3'6 1'60	9'2 2'00	3'2 1'60	5'2	15'6	25'2 80	16'0	2'4 1'60	24'0	406'7 40	1337'5 20'42	104'5	139'7	...	79'3 40	187'8
Sitapur.	416 {	...	...	2'4	12'0 4'81	158'7	16'8	...	2'4	2'4	14'4	4'8 2'40	4'8	52'9	9'6	9'6	2'4 2'40	19'2	502'4	1290'9 12'02	85'1	50'5	117'8	79'3	254'8
Fatehgarh.	215 {	...	...	...	46'5 9'30	144'2	...	46'5	...	4'7	14'0	...	4'7	4'7	14'0	9'3	...	18'6	432'6	1134'9 9'30	65'5	223'3	...	46'5	162'8
Cawnpore.	867 {	...	...	3'5	23'1 5'77	190'3	8'1	...	...	4'6 1'15	18'5	3'5	1'2	33'4	50'7 1'15	13'8	6'9 5'77	21'9	658'6	1376'0 18'45	107'8	263'0	...	152'2	243'4
Allahabad.	1,037 {	...	...	15'4	93'5 27'97	151'4	1'0	67'5	1'0	8'7 1'93	1'0 96	3'9 1'93	...	11'6 96	52'1 96	8'7	1'0	22'2	487'0	1321'1 37'61	98'3	68'5	139'8	43'4	235'3
Fort Allahabad.	213 {	...	...	18'8	56'3 23'47	253'5	...	150'2	...	...	18'8	...	4'7	56'3	46'9	61'0	...	14'1	544'6	1877'9 23'47	96'2	131'5	108'0	65'7	239'4
GROUP V.— GANGETIC PLAIN AND CHUTIA NAGPUR.	† 7,492 {	33'5	1'9	4'0	40'0	183'4	12'8	71'4	'3	3'7	11'7	3'1	3'6	20'6	38'0	16'9	2'9	21'4	534'2	1393'6	* 100'7	188'6	36'8	93'6	215'2
		...	1'07	...	11'61	...	'13	...	...	1'20	1'07	1'07	'27	...	'53	...	2'14	...	'13	22'42	...	...	...	'13	...

* Worked on the aggregates.

† Derived from the aggregates.

EUROPEAN TROOPS, 1896.

TABLE III—continued.

RATIOS of STATIONS, GROUPS and COMMANDS.

For actuals see Table IV.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.														2. DEATH-RATE.									
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.
Shahjahanpur .	453 {	...	...	...	2'2	70'6	6'6	2'2	...	4'4	33'1	4'4	4'4	11'0	11'0	17'7	2'2	24'3	1046'4	1611'5	135'6	289'2	72'8	145'7	538'6
Bareilly .	1,412 {	70'1	...	7	32'6	119'7	1'4	19'8	7	1'4	17'7	7'8	16'3	19'1	29'7	15'6	4'2	24'1	677'8	1463'9	97'8	290'4	7	122'5	264'2
Meerut .	2,004 {	...	...	3'0	33'4	313'4	12'0	8'0	...	4'0	3'5	3'5	8'5	24'0	24'0	20'5	2'5	13'0	543'9	1401'7	107'2	128'2	134'7	82'8	198'1
Delhi .	287 {	...	...	...	3'5	829'3	3'5	...	...	...	7'0	...	7'0	20'9	10'5	20'9	...	3'5	372'8	1829'3	106'6	104'5	59'2	66'2	142'9
Roorkee .	401 {	...	2'5	...	7'5	174'6	10'0	2'5	2'5	5'0	12'5	5'0	7'5	15'0	24'9	20'0	2'5	12'5	433'9	1167'1	100'8	34'9	172'1	77'3	149'6
Umballa .	2,023 {	4'4	...	4'4	24'2	237'8	4'9	17'8	1'5	3'5	11'4	3'0	8'4	31'6	14'8	22'2	2'5	19'8	520'5	1470'6	99'4	152'7	53'4	91'9	222'4
Jullundur .	874 {	...	...	...	11'4	147'6	1'1	1'1	...	2'3	...	...	4'6	34'3	18'3	22'9	1'1	24'0	449'7	1001'1	79'1	92'7	99'5	62'9	194'5
Ferozepore .	1,083 {	43'4	...	2'8	6'5	289'0	6'5	3'7	9	5'5	9	9	8'3	76'6	3'7	20'3	...	6'5	529'1	1525'4	91'0	90'5	145'0	57'2	236'4
Meean Meer .	924 {	10'8	...	7'6	39'0	289'0	19'5	195'9	...	35'7	5'4	3'2	13'0	24'9	14'1	21'6	...	11'9	435'1	163'64	110'0	108'2	14'1	107'1	205'6
Fort Lahore .	94 {	...	...	10'6	53'2	574'5	159'6	...	...	74'5	...	10'6	...	21'3	31'9	21'3	...	10'6	372'3	1904'3	93'7	85'1	31'9	63'8	191'5
Amritsar .	223 {	...	4'5	...	17'9	255'6	44'8	...	...	...	...	4'5	...	17'9	4'5	22'4	...	9'0	614'3	1363'2	79'6	85'2	251'1	89'7	188'3
Sialkot .	1,383 {	10'1	...	7	11'6	167'8	17'4	2'2	1'4	2'2	4'3	1'4	7'2	18'8	15'2	15'9	7	4'3	363'7	914'0	55'1	164'1	31'1	42'7	125'8
Rawalpindi .	2,797 {	...	4	3'2	12'9	290'7	42'9	17'2	3'9	3'2	6'8	2'9	8'6	39'0	10'0	11'4	1'4	7'9	336'1	1247'4	86'8	149'4	...	51'1	135'5
Campbellpur .	265 {	...	3'8	...	15'1	132'1	...	...	...	...	...	...	...	26'4	3'8	11'3	...	3'8	426'4	913'2	58'4	237'7	...	52'8	135'8
Attock .	167 {	...	...	...	...	365'3	6'0	...	6'0	24'0	...	...	...	12'0	24'0	29'9	...	6'0	341'3	1203'6	68'1	149'7	...	41'9	149'7
GROUP VI.— UPPER SUB- HIMALAYAN.	† 14,390 {	12'4	3	2'6	19'8	248'7	16'7	22'2	1'4	5'9	7'5	3'1	8'5	30'7	15'9	18'1	1'7	13'1	487'0	1340'7	* 92'3	152'2	59'6	76'9	198'4
		49	21	28	5'21	...	69	...	...	1'18	14	56	1'39	...	42	07	76	...	07	13'83	...	...	...	07	...
Nowshera .	714 {	...	...	2'8	28'0	554'6	106'4	...	5'6	16'8	2'8	2'8	5'6	29'4	11'2	4'2	1'4	18'2	439'8	1740'9	106'2	121'8	42'0	70'0	205'9
Peshawar .	1,586 {	8'2	...	...	45'4	518'3	29'0	...	1'3	7'6	8'2	3'2	18'9	51'7	15'8	18'3	6	7'6	335'4	1452'7	86'0	26'5	148'8	65'6	94'6
Mooltan .	1,051 {	...	...	1'9	7'6	200'8	10'5	162'7	...	20'0	5'7	4'8	2'9	11'4	13'3	17'1	2'9	10'5	480'5	1509'0	99'5	53'3	138'9	80'9	207'4
Hyderabad .	381 {	...	...	...	15'7	336'0	2'6	...	...	34'1	49'9	...	2'6	7'9	10'5	36'7	...	7'9	619'4	1753'3	114'3	118'1	118'1	149'6	233'6
Kurrachee .	1,105 {	...	...	9	8'1	882'4	6'3	...	...	2'7	14'5	1'8	9	15'4	22'6	37'1	1'8	11'8	474'2	2057'0	89'9	32'6	218'1	42'5	181'0
GROUP VII.—N.- W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA.	† 4,837 {	2'7	...	1'0	23'8	523'5	29'2	35'4	1'2	12'6	11'6	2'9	8'1	27'9	15'7	21'7	1'4	10'8	436'4	1669'2	* 95'1	55'0	144'3	70'9	166'2
		...	...	...	5'79	...	1'03	...	...	1'86	62	41	1'24	...	41	...	1'03	21	...	14'47	...	...	...	...	...
Nowgong .	314 {	...	6'4	...	3'2	423'6	15'9	76'4	...	6'4	12'7	...	...	22'3	...	31'8	...	15'9	1057'3	2299'4	145'7	136'9	178'3	95'5	646'5
Jhansi .	942 {	...	10'6	3'2	29'7	417'2	...	22'3	...	7'4	15'9	6'4	1'1	39'3	35'0	25'5	2'1	62'6	859'9	2039'3	160'0	303'6	66'9	127'4	362'0
Agra .	1,129 {	...	...	4'4	44'3	173'6	...	23'9	1'8	5'3	11'5	3'5	7'1	27'5	17'7	13'3	9	5'3	532'3	1217'0	100'1	135'5	20'4	124'0	252'4
Muttra .	552 {	7'2	3'6	1'8	10'9	259'1	7'2	9'1	...	9'1	1'8	...	3'6	34'4	21'7	39'9	1'8	10'9	389'5	1389'5	85'2	41'7	119'6	52'5	175'7
Nasirabad .	765 {	5'2	...	5'2	37'9	300'7	3'9	...	...	9'2	6'5	...	7'8	82'4	20'9	15'7	2'6	23'5	871'9	1879'7	111'4	400'0	96'7	92'8	282'4
Neemuch .	327 {	9'2	...	3'1	15'3	1024'5	27'5	15'3	6'1	...	3'1	3'1	9'2	18'3	30'6	30'6	...	12'2	859'3	2455'7	129'0	140'7	259'9	177'4	281'3

* Worked on the aggregates.

† Derived from the aggregates.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.
Indore . . .	98 {	...	20'4	...	40'8	234'7	30'6	91'8	...	...	...	...	20'4	51'0	71'4	...	71'4	438'8	1438'8	94'0	163'3	122'4	61'2	91'8	
Mhow . . .	1,782 {	5'6	1'1	1'7	39'3	294'1	16'3	12'3	1'1	'6	3'9	3'9	5'1	32'0	7'9	30'9	1'7	25'8	594'8	1551'1	117'1	253'1	61'7	106'1	174'0
Ahmedabad . .	230 {	...	4'3	...	4'3	1004'3	13'0	8'7	...	4'3	4'3	17'4	17'4	100'0	8'7	34'8	17'4	43'5	1069'6	3417'4	171'9	82'6	400'0	282'6	304'3
Deesa . . .	302 {	...	...	6'6	6'6	708'6	23'2	...	...	19'9	...	3'3	6'6	9'9	...	3'3	...	13'2	596'0	1970'2	106'3	56'3	89'4	102'6	347'7
GROUP VIII.— SOUTH-EAST RAJPUTANA, CENTRAL INDIA AND GUJARAT.	† 6,440 {	3'3	3'0	3'0	30'4	376'1	9'8	17'9	'9	5'4	7'3	3'6	5'4	38'5	17'4	25'5	2'0	25'6	688'7	1756'4	* 120'1	211'2	94'4	114'8	268'3
Ahmednagar . .	770 {	...	1'3	...	16'9	184'4	...	22'1	...	...	...	6'5	3'9	31'2	15'6	35'1	...	19'5	477'9	1129'9	72'7	111'7	63'6	100'0	202'6
Poona . . .	2,067 {	...	6'3	1'5	16'9	349'3	2'4	4'4	...	1'0	3'4	2'4	3'9	15'5	23'2	20'3	2'9	16'0	522'5	1239'5	72'5	120'9	113'7	123'4	164'5
Kirkee . . .	731 {	...	...	...	54'7	378'9	34'2	19'2	2'7	1'4	2'7	...	...	17'8	17'8	24'6	5'5	13'7	359'8	1335'2	89'7	90'3	31'5	79'3	158'7
Satara . . .	239 {	...	...	...	4'2	422'6	4'2	8'4	...	...	4'2	...	4'2	12'6	8'4	12'6	...	41'8	380'8	1217'6	82'1	37'7	41'8	92'1	209'2
Kamptee . . .	995 {	...	...	...	11'1	182'9	17'1	...	...	...	3'0	...	1'0	12'1	20'1	2'0	1'0	18'1	561'8	1043'2	74'8	18'1	307'5	45'2	191'0
Sitabaldi . . .	51 {	...	...	...	19'6	745'1	...	196'1	...	...	...	...	...	19'6	78'4	39'2	...	39'2	529'4	2333'3	39'2	333'3	...	19'6	176'5
Belgam . . .	1,160 {	2'6	...	...	6'9	81'0	3'4	...	...	...	6'0	9'5	2'6	12'9	20'7	...	1'7	7'8	619'0	1164'7	79'1	337'9	...	149'1	131'9
Secunderabad . .	2,941 {	28'2	...	'3	32'6	112'2	2'0	13'9	...	5'4	4'1	16'3	3'4	39'4	46'6	8'5	1'0	33'3	563'1	1313'8	102'1	259'4	1'7	106'1	195'9
Jubbulpore . .	845 {	...	...	...	33'1	710'1	16'6	...	...	1'2	3'6	8'3	8'3	41'4	71'0	16'6	7'1	41'4	583'4	1863'9	133'0	114'8	223'7	85'2	159'8
Saugor . . .	358 {	...	5'6	...	5'6	578'2	11'2	5'6	2'8	...	8'4	5'6	2'8	19'6	16'8	8'4	5'6	25'1	849'2	2050'3	110'4	50'3	349'2	78'2	371'5
GROUP IX.— DECCAN.	† 10,157 {	8'5	1'6	'4	23'1	265'1	7'5	9'4	'3	2'0	3'7	7'7	3'3	25'4	32'1	13'4	2'4	23'5	547'3	1317'3	89'7	168'9	92'7	102'7	182'9
Colaba . . .	1,212 {	...	'83	...	1'7	88'3	9'9	89'1	...	1'7	5'0	'8	1'7	21'5	9'1	30'5	'8	8'3	380'4	1094'9	77'9	84'2	122'1	47'9	126'2
Cannanore . . .	96 {	...	...	...	135'4	10'4	31'3	83'3	...	10'4	...	...	...	10'4	...	...	...	20'8	312'5	958'3	54'6	72'9	20'8	52'1	166'7
Calicut . . .	101 {	...	...	...	49'5	69'3	...	59'4	...	9'9	9'9	...	...	9'9	19'8	...	...	19'8	534'7	1237'6	77'4	148'5	138'6	39'6	207'9
Mallapuram . .	148 {	...	...	...	47'3	20'3	...	27'0	...	6'8	13'5	...	...	...	6'8	...	...	...	729'7	1243'2	95'9	87'8	121'6	236'5	283'8
GROUP X.— WESTERN COAST.	† 1,556 {	...	'64	...	17'4	75'8	9'6	81'0	...	3'2	5'8	'6	1'3	18'0	9'0	23'8	'6	9'0	419'7	1110'5	* 78'2	88'0	117'0	65'6	149'1
Madras . . .	556 {	3'6	...	...	3'6	127'7	1'8	...	3'6	...	7'2	1'8	1'8	23'4	48'6	5'4	7'2	45'0	739'2	1562'9	45'7	185'3	97'1	125'9	330'9
St. Thomas' Mount.	321 {	...	...	...	9'3	56'1	3'1	127'7	...	...	6'2	3'1	6'2	15'6	34'3	...	3'1	65'4	305'3	1149'5	57'6	99'7	49'8	68'5	87'2
Pallavaram . .	61 {	16'4	...	...	32'8	49'2	...	49'2	...	...	16'4	...	16'4	32'8	98'4	16'4	...	32'8	475'4	1262'3	62'1	65'6	...	98'4	311'5
Bangalore . . .	1,951 {	'5	2'1	8'7	24'1	32'8	19'0	40'5	1'0	...	7'7	2'6	5'6	12'8	33'3	8'2	1'0	29'2	459'3	1065'1	86'6	179'9	13'3	96'4	169'7
Bellary . . .	671 {	...	...	...	4'5	193'7	...	...	...	1'5	6'0	4'5	1'5	20'9	17'9	...	...	6'0	518'6	1359'2	93'4	242'9	11'9	92'4	171'4
GROUP XI.— SOUTHERN INDIA.	† 3,561 {	1'1	1'1	4'8	16'0	80'3	11'0	34'5	1'1	'3	7'3	2'8	4'5	16'6	34'0	5'6	2'0	30'6	500'4	1208'9	* 78'4	183'4	29'2	97'7	190'1

* Worked on the aggregates.

† Derived from the aggregates.

TABLE III—continued.

RATIOS of STATIONS, GROUPS and COMMANDS.

For actuals see Table IV

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.																2. DEATH-RATE.									
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.		
Ranikhet . .	1,040 {	5'8	...	...	72'1 10'58	125'0	3'8	46'2	1'0	...	26'0	7'7	5'8	40'4	36'5 96	39'4	1'9 1'92	12'5	675'0 96	1502'9 16'35	105'1	335'6	...	180'8 96	158'...
Chaubuttia . .	329 {	...	...	...	3'0	27'4	3'0	15'2	3'0	...	24'3	...	...	30'4	12'2	33'4	...	15'2	766'0 3'04	1297'9 6'08	82'4	331'3	27'4	261'4 3'04	145'...
Chakrata . .	913 {	...	...	...	8'8 1'10	112'8	12'0	...	...	...	12'0 2'19	4'4 1'10	2'2	28'5	20'8	14'2	...	38'3	759'0	1379'0 5'48	96'6	322'0	119'4	144'6	173'...
Dagshai . .	785 {	38'2	...	...	52'2 14'01	187'3	...	33'1	3'8	...	14'0	6'4 2'55	6'4	29'3	11'5	81'5	...	24'2	347'8	1388'5 17'83	98'9	52'2	65'0	86'6	143'...
Solon . .	209 {	...	...	...	14'4 4'78	181'8	...	4'8	4'8	...	...	23'9	...	...	19'1	67'0	...	43'1	526'3	1334'9 4'78	79'6	229'7	...	186'6	110'...
Subathu . .	448 {	...	...	...	243'3 33'48	214'3	8'9 2'23	11'2	15'6	...	11'2	4'5	2'2	11'2	29'0	20'1	6'7 6'70	8'9	486'6	1705'4 42'41	112'2	287'9	...	46'9	151'...
Jutogh . .	235 {	...	...	...	42'6 8'51	225'5	21'3	...	12'8	...	29'8	...	...	4'3	46'8	21'3	12'8 8'51	12'8	370'2	1268'1 17'02	85'8	166'0	4'3	80'9	119'...
Khyragully . .	67 {	...	...	...	14'9 14'93	209'0	...	...	...	...	14'9	...	...	14'9	...	...	...	14'9	298'5	1179'1 14'93	54'6	74'6	14'9	44'8	164'2
Baragully . .	51 {	...	...	...	...	58'8	...	...	...	...	...	...	...	...	...	...	...	...	313'7	843'1	36'1	78'4	...	137'3	98'0
Kuldunnah . .	484 {	...	...	...	4'1 2'07	119'8	...	...	...	...	24'8	4'1	10'3	16'5	...	66'1	...	12'4	417'4	1115'7 2'07	76'9	138'4	...	64'0	214'9
Kalabagh . .	50 {	...	...	...	...	340'0	...	...	...	...	40'0	...	20'0	20'0	20'0	...	...	...	240'0	1000'0	46'2	140'0	...	60'0	40'0
Camp Gharial . .	450 {	...	...	...	6'7 2'22	286'7	2'2	2'2	6'7	2'2	4'4	...	2'2	24'4	11'1	46'7	...	6'7	291'1	1222'2 6'67	61'2	122'2	2'2	102'2	64'4
Camp Thobba . .	314 {	...	...	...	6'4	270'7	...	...	...	...	3'2	...	3'2	35'0	3'2	54'1	...	25'5	458'6	1662'4	74'2	124'2	...	168'8	165'6
Lower Topa. }	130 {	...	...	...	15'4	138'5	...	...	15'4	...	...	...	...	...	46'2	...	...	15'4	238'5	869'2 7'69	56'3	115'4	...	69'2	53'8
Ghora Dhaka . .	154 {	...	...	...	...	129'9	...	...	6'5	...	6'5	...	...	64'9	19'5	...	...	32'5	220'8	772'7	42'0	58'4	...	58'4	103'9
Cherat . .	593 {	...	...	...	28'7 10'12	72'5	21'9	...	1'7	8'4	3'4	3'4	...	1'7	8'4	21'9	...	...	72'5	386'2 13'49	36'0	10'1	28'7	11'8	21'9
Quetta . .	2,315 {	...	...	1'3 43	60'5 9'50	195'2	9'9 86	8'2	1'7	...	5'6	2'2 43	6'0 86	21'2 43	14'7	21'2	9 43	6'0	504'1	1324'4 14'69	110'7	140'8	109'7	89'8	163'7
Ramandrug . .	24 {	...	...	...	...	...	...	...	...	...	...	...	...	...	83'3	...	...	41'7	291'7	833'3	49'6	166'7	...	41'7	83'3
Bernardmyo . .	185 {	...	...	...	...	124'3	10'8	...	...	...	...	...	...	5'4	...	...	...	27'0	308'1	686'5	44'9	64'9	37'8	135'1	70'3
GROUP XII a— HILL STA- TIONS.	† 8,776 {	4'1	...	3 11	47'2 8'20	163'9	7'3 34	12'0	3'1	7	11'7 34	3'8 46	4'1 23	22'8 11	17'7 11	32'9	1'1 91	15'2	478'5 23	1269'1 12'53	* 89'6	177'5	51'3	108'8	140'8		
Darjeeling . .	523 {	...	...	...	...	112'8	5'7 1'91	...	1'9	...	1'9 3'82	3'8	7'6 1'91	21'0	19'1 1'91	57'4	1'9 1'91	19'1	357'6	977'1 11'47	64'4	107'1	38'2	120'5	91'8
Naini Tal . .	135 {	...	...	...	7'4 7'41	148'1	22'2	...	...	...	29'6	...	7'4	59'3 7'41	14'8	51'9	7'4 7'41	29'6	422'2	1155'6 29'63	103'7	103'7	7'4	111'1	200'0
Landour . .	164 {	...	...	6'1	...	225'6	...	...	...	...	12'2	...	...	12'2	24'4	12'2	12'2 6'10	30'5	329'3	963'4 6'10	83'0	170'7	6'1	115'9	36'6
Pachmarhi . .	113 {	...	...	...	8'8 26'55	539'8	159'3 17'70	53'1	...	...	...	...	...	26'5	132'7 8'85	8'8	26'5 17'70	35'4	477'9	2265'5 70'80	110'1	53'1	79'6	44'2	300'9

* Worked on the aggregates.

† Derived from the aggregates.

STATIONS, GROUPS AND COMMANDS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.
Kasauli . .	374 {	2'7	...	...	16'0	192'5	...	21'4	...	...	13'4	5'3	2'7	29'4	50'8	34'8	8'0	24'1	473'3	1508'0	107'0	128'3	...	149'7	195'2
Dalhousie . .	828 {	...	...	1'2	19'3	176'3	2'4	2'4	1'2	...	4'8	4'8	2'4	15'7	9'7	25'4	...	13'3	364'7	954'1	71'4	176'3	6'0	94'2	88'2
Murree . .	81 {	...	...	...	12'3	...	...	12'3	...	...	...	61'7	...	24'7	...	...	12'3	...	37'0	271'6	270'7	12'3	...	24'7	...
Taragarh . .	42 {	...	...	...	...	119'0	...	...	...	...	...	...	...	...	...	...	...	23'8	666'7	1214'3	94'0	214'3	...	309'5	142'9
Mount Abu . .	72 {	...	...	...	...	625'0	...	27'8	...	...	...	...	13'9	27'8	27'8	97'2	...	13'9	263'9	1444'4	83'1	13'9	13'9	194'4	41'7
Purandhur . .	118 {	...	...	...	8'5	288'1	...	...	...	...	...	...	...	16'9	16'9	16'9	...	16'9	423'7	1169'5	71'1	16'9	67'8	296'6	42'4
Khandalla . .	91 {	...	...	...	...	142'9	...	...	...	...	...	11'0	...	65'9	11'0	11'0	...	11'0	461'5	1022'0	78'8	65'9	76'9	285'7	33'0
Wellington . .	1,049 {	42'9	...	...	11'4	142'0	50'5	...	1'0	...	9'5	...	1'9	27'6	17'2	20'0	1'0	12'4	400'4	1386'1	92'9	144'9	1'0	113'4	141'1
GROUP XII b— Hill Convalescent Depôts and Sanitaria	† 3,591 {	12'8	...	6	10'3	178'8	22'0	5'3	8	...	7'2	3'9	3'1	24'8	22'6	29'2	3'3	17'0	387'9	1196'6	88'5	130'6	14'8	123'9	118'6
Troops marching, Bengal.	591 {	...	11'8	1'7	25'4	88'0	8'5	10'2	...	...	1'7	...	11'8	37'2	22'0	3'4	...	10'2	514'4	979'7	12'6	187'8	91'4	81'2	154'0
Troops marching, Punjab.	386 {	5'2	...	2'6	23'3	108'8	5'2	2'6	...	...	2'6	...	31'1	23'3	20'7	18'1	...	2'6	194'3	673'6	7'2	95'9	7'8	25'9	64'8
Troops marching, Madras.	58 {	...	...	...	...	17'2	...	172'4	...	...	...	...	...	17'2	34'5	34'5	...	17'2	34'5	862'1	17'1	17'2	...	17'2	...
Troops marching, Bombay.	137 {	...	...	...	7'3	131'4	7'3	...	...	...	...	...	...	...	43'8	7'3	...	14'6	350'4	824'8	11'5	167'9	73'0	21'9	87'6
Deolali Depôt .	860 {	...	1'2	2'3	30'2	370'9	10'5	8'1	1'2	8'1	124'4	79'1	12'8	34'9	58'1	25'6	9'3	45'3	684'9	2143'0	90'4	98'8	90'7	283'7	211'6
Poonamallee Depôt.	177 {	...	...	...	...	28'2	...	45'2	...	...	11'3	113'0	5'6	16'9	163'8	5'6	16'9	101'7	463'3	1446'3	455'0	50'8	5'6	333'3	73'4
Aden . .	1,026 {	...	...	...	3'9	257'3	2'9	4'9	...	3'9	10'7	1'9	1'0	13'6	24'4	3'9	1'0	39'0	405'5	1241'7	65'2	62'4	90'6	100'4	152'0
India . .	† 70,484 {	11'5	1'0	1'7	25'5	239'0	13'9	30'0	1'1	3'8	9'8	5'0	5'2	26'0	26'1	20'1	2'2	21'3	511'6	1386'7	*	159'3	67'1	97'7	187'4
BENGAL . .	† 22,457 {	16'0	1'8	2'1	30'2	229'7	14'5	33'0	5	3'0	11'8	3'9	5'1	24'2	35'3	21'4	3'2	21'8	582'4	1435'9	100'2	180'7	74'0	105'8	222'0
PUNJAB . .	† 18,823 {	6'7	2	1'9	25'9	257'8	19'4	26'0	2'4	6'5	6'9	3'2	7'5	30'4	13'9	23'5	1'4	12'2	395'0	1282'4	83'9	118'4	50'9	71'8	153'9
MADRAS . .	† 13,483 {	22'6	4	1'4	16'8	108'1	9'4	48'3	6	2'4	7'3	7'6	3'3	24'5	35'7	9'7	1'6	35'4	526'3	1336'1	99'0	218'0	15'3	109'4	183'6
BOMBAY . .	† 15,716 {	1'1	1'3	1'2	25'5	342'3	10'1	14'7	7	3'0	12'7	6'5	4'3	24'7	19'5	23'2	2'2	19'3	537'4	1484'7	92'2	127'3	121'4	107'3	181'4
Lucknow†	2,498	2'3	...	2	2'7	7'5	3'0	9'4	...	2	1'4	4	8	8	1'0	6	2	2'1	39'2	104'5	104'5	13'2	2	10'5	15'3
Meerut . .	2,004	...	...	3	6'2	11'4	9	8	...	4	1'0	1'2	7	1'5	2'7	6	3	9	52'6	107'2	107'2	12'8	10'8	14'4	14'6
Umballa . .	2,023	2	...	3	4'9	7'4	7	8	1	3	8	1'1	1'1	1'3	1'8	8	3	1'3	46'0	99'4	99'4	12'5	5'7	13'6	14'1
Rawalpindi . .	797	...	...	5	1'8	19'3	2'5	9	5	1	9	5	8	2'1	8	4	...	4	29'0	86'8	86'8	15'5	...	2'4	11'1
Poona . .	2,007	...	...	...	2'0	9'9	2	2	...	...	4	5	2	6	1'2	7	2	1'1	44'0	72'5	72'5	10'4	9'1	13'4	11'2
Secunderabad . .	2,941	11'8	...	...	4'7	4'7	1	6	...	5	5	3'9	4	2'3	3'0	3	1	2'4	44'8	102'1	102'1	21'3	...	9'5	14'0
Quetta . .	2,315	...	...	...	13'1	8'1	9	5	3	...	5	4	6	1'2	1'3	9	1	4	54'8	110'7	110'7	16'7	10'4	11'3	16'5

* Worked on the aggregates.

† Derived from the aggregates.

‡ Constantly sick-rate per 1,000 by diseases at the largest stations.

EUROPEAN TROOPS, 1896.

TABLE IV.

ACTUALS of STATIONS, GROUPS and COMMANDS on which the ratios in Tables I-III have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.											2. DEATHS.				3. CONSTANTLY SICK.									
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.	Tania.	Other Entozoa.
Port Blair . . .	143 {	...	...	...	1	13	...	44	...	...	1	1	...	2	2	...	1	2	24	135	1	1	7	15	...	...
Rangoon . . .	1,167 {	167	1	...	16	125	4	10	...	...	19	2	4	42	74	18	1	74	692	1,789	261	...	119	312	...	2
		5'87	0'01	...	3'17	5'63	4'6	4'1	...	...	2'05	0'66	4'3	2'65	7'34	7'3	0'02	6'24	73'06	146'85	30'43	0'01	13'08	29'54	...	16
GROUP I.—BURMA COAST AND BAY ISLANDS.	1,310* {	167	1	...	17	138	4	54	...	...	20	3	4	44	76	18	2	76	716	1,924	262	1	126	327	...	2
		5'87	0'01	...	3'35	5'83	4'6	1'45	...	...	2'07	0'72	4'3	2'70	7'38	7'3	0'10	6'31	74'53	151'54	30'68	0'11	13'52	30'22	...	16
Thayetmyo . . .	541 {	...	...	...	...	73	3	127	...	1	...	1	2	24	5	...	1	24	323	920	174	1	55	93	1	1
		...	...	...	...	3'40	2'9	4'22	...	0'10	...	0'04	0'10	0'64	0'23	...	0'04	1'28	29'13	57'09	16'23	0'09	5'34	7'47	0'01	0'02
Meiktila . . .	397 {	...	...	1	...	76	...	...	...	1	...	1	...	1	1	7	...	10	256	505	96	5	48	107	...	...
		...	...	1'13	...	3'55	...	...	...	0'11	...	0'22	...	0'17	0'60	0'35	...	1'61	27'43	46'87	10'18	0'48	7'12	9'65	...	...
Fort Dufferin . . .	1,027 {	2	1	...	3	18	12	268	1	9	13	4	4	20	32	19	2	81	430	1,554	180	47	77	126	12	2
		0'08	...	...	1	1'04	0'94	8'47	0'04	0'54	1'16	1'04	0'49	1'65	2'31	0'34	0'20	5'95	41'43	111'77	14'75	3'01	13'64	10'03	0'36	0'04
Shwebo . . .	472 {	1	...	...	9	52	...	2	1	1	5	2	1	7	21	8	...	27	343	752	152	...	56	135	3	...
		0'05	...	...	1'79	2'76	...	0'09	0'03	0'12	0'68	0'13	0'04	0'15	0'91	0'15	...	1'10	32'68	52'08	13'35	...	8'61	10'72	0'07	...
Bhamo . . .	241 {	...	...	...	...	202	1	...	1	...	...	2	2	8	11	10	...	1	115	538	56	...	32	27	...	...
		...	...	...	...	5'40	0'09	...	0'12	...	...	0'30	0'32	1'26	1'13	0'34	...	0'08	9'44	29'14	4'93	...	3'11	1'40	...	...
GROUP II.—BURMA INLAND.	2,679* {	3	1	1	12	421	16	397	3	12	18	10	9	60	70	44	3	143	1,467	4,259	658	53	268	488	16	3
		0'13	...	0'13	2'29	16'15	1'32	12'78	0'19	0'87	1'84	1'73	0'95	3'87	5'18	1'18	0'24	10'02	140'11	296'95	59'44	3'58	37'82	39'27	0'44	0'06
Fort William . . .	1,049 {	...	2	...	10	124	97	...	...	3	19	6	1	25	76	38	4	18	542	1,473	126	77	92	247	7	2
		...	0'01	...	4	5'13	3'90	...	0'03	0'03	1'49	0'93	0'20	1'23	5'50	1'21	0'73	1'82	50'26	104'34	12'99	6'73	11'17	19'37	0'41	0'04
Fort Fulta . . .	31 {	...	...	...	...	10	...	...	...	1	...	...	...	1	1	...	...	...	10	33	...	2	...	8	...	...
		...	...	...	...	0'06	...	...	...	...	...	...	...	0'02	...	...	...	...	0'04	0'16	...	0'01	...	0'03	...	...
Fort Chingrikhal . . .	42 {	...	...	...	...	5	...	...	1	...	...	...	...	...	1	...	...	...	28	46	8	7	6	7	...	...
		...	...	...	...	0'01	...	...	...	...	...	...	...	...	...	...	...	...	0'22	0'30	0'09	0'03	0'04	0'06	...	...
Dum Dum . . .	981 {	...	...	...	10	129	27	15	...	...	12	3	...	7	30	23	7	26	434	937	63	140	106	125	...	...
		...	...	...	4	3'61	1'67	3'31	...	...	1'32	0'39	...	0'16	1'69	0'49	0'85	1'62	32'47	56'94	5'60	9'19	10'37	7'31	...	...
Barrackpore . . .	358 {	...	1	...	25	236	...	...	...	...	...	...	...	4	55	13	5	7	203	715	19	44	40	100	1	...
		...	0'01	...	3'94	6'17	...	...	0'18	...	...	...	...	0'13	4'83	0'20	0'43	0'23	12'53	34'15	1'25	3'04	2'45	5'79	0'01	...
GROUP IV.—BENGAL AND ORISSA.	2,460* {	...	3	...	45	504	124	15	1	4	31	9	1	37	163	74	16	51	1,217	3,204	216	270	244	487	8	2
		...	0'02	...	10	14'98	5'57	3'31	0'21	0'03	2'81	1'32	0'20	1'54	12'02	1'90	0'01	3'67	95'52	195'89	19'93	19'00	24'03	32'56	0'42	0'04
Dinapore . . .	806 {	...	2	1	6	114	10	...	...	1	8	2	2	17	24	7	1	25	645	1,114	398	...	87	160	...	...
		...	0'07	0'20	1'39	4'09	0'96	...	...	0'16	1'00	0'88	0'10	1'03	1'66	0'18	0'16	2'43	51'36	81'02	29'57	...	11'18	10'61	...	...
Benares . . .	437 {	5	12	...	54	40	5	178	...	...	5	...	1	10	24	23	1	3	176	731	18	46	30	82	...	...
		1'11	0'33	...	7'26	1'07	0'56	5'49	...	...	0'91	...	0'04	0'45	2'18	0'79	0'01	0'19	13'32	41'04	1'49	3'93	2'63	5'27	...	...
Fyzabad . . .	1,003 {	19	...	...	39	191	...	5	...	3	21	4	6	12	59	17	6	15	671	1,511	252	13	152	254	4	...
		0'82	...	...	3'39	3'26	...	0'24	...	0'02	1'56	0'54	0'55	0'61	3'32	0'51	0'36	1'17	68'87	106'38	29'41	1'14	14'83	23'49	0'12	...
Lucknow . . .	2,498 {	227	...	5	57	556	66	240	...	9	23	8	13	39	63	40	6	60	1,016	3,341	349	...	198	469	16	...
		5'66	...	0'60	6'86	18'84	7'49	23'36	...	0'49	3'43	1'00	2'04	2'05	2'58	1'47	0'55	5'15	97'94	260'94	33'04	0'39	26'25	38'26	0'89	...
Sitapur . . .	416 {	...	...	1	5	66	7	...	1	1	6	2	2	22	4	4	1	8	209	537	21	49	33	106	2	...
		...	...	0'01	0'47	2'00	0'58	...	0'25	0'04	0'73	0'21	0'17	0'96	0'19	0'11	0'05	0'58	17'42	35'41	3'54	3'26	2'76	7'86	0'07	...
Fatehgarh . . .	215 {	...	...	...	10	31	...	10	...	1	3	...	1	1	3	2	...	4	93	244	48	...	10	35	...	...
		...	...	...	2	0'55	...	0'38	...	0'02	0'05	...	0'06	0'02	0'14	0'02	...	0'21	6'98	14'09	4'30	...	0'50	2'18	...	...
Cawnpore . . .	867 {	...	...	3	20	165	7	...	...	4	16	3	1	29	44	12	6	19	571	1,193	228	...	132	211	...	...
		...	...	0'37	2'26	5'76	0'69	...	...	0'14	1'45	0'42	0'04	1'89	4'76	0'36	0'39	1'36	58'62	93'46	25'16	0'57	13'29	19'60	...	...
Allahabad . . .	1,037 {	...	...	16	97	157	1	70	1	9	1	4	...	12	54	9	1	23	505	1,370	71	145	45	244	1	...
		...	...	1'54	10'42	5'25	0'07	3'24	0'10	0'56	0'27	1'46	...	0'79	2'60	0'35	0'19	1'36	52'29	101'94	7'98	14'38	8'12	21'81	0'02	...
Fort Allahabad . . .	213 {	...	...	4	12	54	...	32	...	...	4	...	1	12	10	13	...	3	116	400	28	23	14	51	...	...
		...	...	0'32	1'21	1'50	...	0'65	...	...	0'42	...	0'05	0'68	1'01	0'33	...	0'06	7'96	20'49	2'17	1'54	1'02	3'23	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	7,492* {	251	14	30	300	1,374	96	535	2	28	88	23	27	154	285	127	22	160	4,002	10,441	1,413	276	701	1,612	23	...
		6'59	0'40	3'04	35'54	42'32	10'35	33'36	0'35	1'43	9'82	4'51	0'05	8'48	18'34	4'12	1'71	12'51	374'76	754'77	136'66	25'21	80'58	132'31	1'10	...

* Derived from the aggregates.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.												2. DEATHS.					3. CONSTANTLY SICK.											
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.	Tania.	Other Entozoa.				
Shahjahanpur . . .	453 {	...	...	...	1 11	32 1'16	3 33	1 02	...	2 11	15 2'40	2 03	2 07	5 22	5 51	8 22	1 13	11 1'05	474 42'95	730 61'43	131 13'82	33 1'90	66 7'39	244 19'84	...	...		
Bareilly . . .	1,412 {	99 2'64	...	1 04	46 7'01	169 6'31	2 13	28 2'40	1 14	2 12	25 1'71	11 1'80	23 1'74	27 2'66	42 2'90	22 7'5	6 76	34 1'89	957 75'12	2,067 138'14	410 30'74	1 15	173 14'76	373 29'47	4 23	...				
Meerut . . .	2,004 {	...	...	6 68	67 12'51	628 22'94	24 1'72	16 1'69	...	8 83	7 1'99	7 2'31	17 1'36	48 2'92	48 5'36	41 1'17	5 53	26 1'82	1,090 105'34	2,809 214'92	257 25'58	270 21'64	166 28'78	397 29'34	3 08	...		
Delhi . . .	287 {	...	...	...	1 16	238 7'56	1 05	...	...	...	2 09	...	2 16	6 22	3 39	6 52	...	1 17	107 11'76	525 30'60	30 4'67	17 2'06	19 1'63	41 3'40	...	...		
Roorkee . . .	401 {	...	1 06	...	3 63	70 2'71	4 19	1 02	1 04	2 06	5 60	2 51	3 48	6 52	10 72	8 53	1 07	5 44	174 20'82	468 40'41	14 2'99	69 6'40	31 5'64	60 5'79	4 20	...				
Umballa . . .	2,023 {	9 36	...	9 70	49 9'91	481 15'04	10 1'40	36 1'65	3 11	7 52	23 1'56	6 2'26	17 2'30	64 2'71	30 3'74	45 1'63	5 63	40 2'67	1,053 93'04	2,975 201'14	309 25'33	108 11'54	186 27'55	450 28'62	17 73	...				
Ballundur . . .	874 {	...	...	...	10 2'46	129 6'01	1 12	1 05	...	2 10	...	...	4 34	30 92	16 2'34	20 95	1 30	21 1'56	393 39'32	875 69'10	81 8'27	87 8'58	55 6'37	170 16'10	...	...		
Perozepore . . .	1,083 {	47 3'86	...	3 18	7 73	313 9'78	7 76	4 18	1 03	6 32	1 02	1 25	9 74	83 2'93	4 20	22 70	...	7 37	573 47'32	1,652 98'57	98 8'69	157 11'92	63 6'20	256 20'51	4 13	1 02				
Meean Meer . . .	924 {	10 55	...	7 43	36 4'07	267 15'13	18 1'79	181 10'50	...	33 1'18	5 21	3 82	12 1'80	23 53	13 96	20 40	...	11 45	402 37'64	1,512 101'63	100 13'25	13 6'4	99 7'25	190 16'50	4 13	...				
Fort Lahore . . .	94 {	...	...	1 05	5 61	54 1'51	15 99	...	...	7 24	...	1 02	...	2 06	3 11	2 09	...	1 03	35 2'55	179 8'81	8 69	3 18	6 32	18 1'35	...	1 05
Amritsar . . .	223 {	...	1 01	...	4 20	57 2'22	10 83	...	...	...	...	1 05	...	4 14	1 05	5 16	...	2 10	137 9'14	304 17'76	19 1'65	56 3'19	20 1'80	42 2'50	1 02	...
Sialkot . . .	1,383 {	14 1'24	...	1 12	16 1'48	232 19'34	24 81	3 07	2 08	3 25	6 1'17	2 42	10 83	26 95	21 1'37	22 76	1 41	6 55	503 29'02	1,264 76'14	227 13'70	43 2'08	59 3'58	174 9'66	1 02	...				
Rawalpindi . . .	2,797 {	...	1 01	9 1'46	36 4'96	813 53'98	120 6'97	48 2'39	11 1'43	9 29	19 2'60	8 1'43	24 2'23	109 5'92	28 2'35	32 1'03	4 13	22 1'14	940 81'01	3,489 242'70	418 43'33	...	143 6'71	379 30'97	13 39	...				
Campbellpur . . .	265 {	...	1 01	...	4 34	35 1'10	...	...	...	...	...	...	...	7 19	1 10	3 06	...	1 03	113 8'82	242 15'47	63 4'84	...	14 1'47	36 2'51	...	...		
Attock . . .	167 {	...	...	...	...	61 1'66	1 08	...	1 04	4 23	...	...	...	2 07	4 55	5 21	...	1 12	57 4'99	201 11'38	25 2'84	...	7 72	25 1'43	...	...		
GROUP VI.—UPPER SUB-HIMALAYAN.	14,390 {	179 7'65	4 08	37 3'66	285 45'27	3,579 166'45	240 16'17	319 19'03	20 1'87	85 4'25	108 12'70	44 10'21	123 12'18	442 21'13	229 21'78	261 8'84	24 3'07	189 12'39	7,008 608'84	19,292 1328'20	2,190 200'39	857 70'28	1,106 120'17	2,855 218'00	51 1'93	2 07				
Nowshera . . .	714 {	...	...	2 14	20 3'49	396 13'70	76 4'23	...	4 42	12 80	2 13	2 48	4 42	21 1'42	8 53	3 06	1 08	13 88	314 30'02	12'43 75'82	87 9'15	30 2'41	50 5'35	147 13'11	...	...		
Peshawar . . .	1,586 {	13 1'12	...	...	72 5'29	822 30'50	46 3'76	...	2 20	12 64	13 1'57	5 3'04	30 3'09	82 6'61	25 1'34	29 1'45	1 04	12 67	532 41'66	2,304 136'39	42 3'60	236 15'98	104 11'72	150 10'36	...	...		
Mooltan . . .	1,051 {	...	...	2 25	8 1'10	211 9'07	11 93	171 5'71	...	21 1'38	6 34	5 89	3 16	12 1'13	14 1'10	18 1'14	3 24	11 43	505 45'77	1,586 104'59	56 6'01	146 11'89	85 10'79	218 17'08	6 22	1 01		
Hyderabad . . .	381 {	...	...	...	6 69	128 3'74	1 08	...	...	13 32	19 1'54	...	1 17	3 10	4 42	14 95	...	3 09	236 23'13	668 43'55	45 4'02	45 4'79	57 6'61	89 7'71	...	...		
Kurrachee . . .	1,105 {	...	...	1 08	9 95	975 24'18	7 38	...	...	3 24	16 1'03	2 33	1 25	17 63	25 1'25	41 1'49	2 11	13 63	524 39'51	2,273 99'37	36 3'35	241 17'94	47 3'88	200 14'34	5 05	...
GROUP VII.—N. W. FRONTIER, INDUS VALLEY, AND N. W. RAJPUTANA.	4,837 {	13 1'23	...	5 47	115 11'52	2,532 81'19	141 9'38	171 5'71	6 62	61 3'38	56 4'61	14 4'74	39 4'09	135 9'91	76 4'64	105 5'09	7 47	52 2'70	2,111 180'09	8,074 459'72	266 26'13	698 53'01	343 38'35	804 62'60	11 27	1 01				

* Derived from the aggregates.

EUROPEAN TROOPS, 1896.

TABLE IV—continued.

ACTUALS of STATIONS, GROUPS and COMMANDS on which the ratios in Tables I—III have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.											2. DEATHS.				3. CONSTANTLY SICK.										
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.	Tania.	Other Entozoa.	
Nowgong . . .	314	...	2	...	1	133	5	24	...	2	4	...	...	7	...	10	...	5	332	722	43	56	30	203	3	...
Jhansi . . .	942	...	10	3	28	393	...	21	...	7	15	6	1	37	33	24	2	59	810	1,921	286	63	120	341	3	...	
Agra . . .	1,129	...	...	5	50	196	...	27	2	6	13	4	8	31	20	15	1	6	601	1,374	153	23	140	285	4	1
Muttra . . .	552	...	2	1	6	143	4	5	...	5	1	...	2	19	12	22	1	6	215	767	23	66	29	97	3	...	
Nasirabad . . .	765	...	...	4	29	230	3	...	...	7	5	...	6	63	16	12	2	18	667	1,438	306	74	71	216	7	...
Neemuch . . .	327	...	...	1	5	335	9	5	2	...	1	1	3	6	10	10	...	4	281	803	46	85	58	92	...	...
Indore . . .	98	...	2	...	4	23	3	9	...	...	...	...	...	2	5	7	...	7	43	141	16	12	6	9	1	...
Mhow . . .	1,782	...	2	3	70	524	29	22	2	1	7	7	9	57	14	55	3	46	1,060	2,764	451	110	189	310	1	...	
Ahmedabad . . .	230	...	1	...	1	231	3	2	...	1	1	4	4	23	2	8	4	10	246	786	19	92	65	70	2	...	
Deesa . . .	302	...	...	2	2	214	7	...	...	6	...	1	2	3	...	1	...	4	180	595	17	27	31	105	2	...
GROUP VIII—S.E. RAJPUTANA, CENTRAL INDIA AND GUJARAT.	6,440*	21	19	19	196	2,422	63	115	6	35	47	23	35	248	112	164	13	165	4,435	11,311	1,360	608	739	1,728	26	1	
Ahmednagar . . .	770	...	1	...	13	142	...	17	...	...	...	5	3	24	12	27	...	15	368	870	86	49	77	56	3	...
Poona . . .	2,067	...	13	3	35	722	5	9	...	2	7	5	8	32	48	42	6	33	1,080	2,562	250	235	255	340	1	...	
Kirkee . . .	731	...	...	...	40	277	25	14	2	1	2	...	...	13	13	18	4	10	263	976	66	23	58	116	...	...
Satara . . .	239	...	...	...	1	101	1	2	...	...	1	...	1	3	2	3	...	10	91	291	9	10	22	50	1	...
Kamptee . . .	995	...	...	...	11	182	17	...	...	...	3	...	1	12	20	2	1	18	559	1,038	18	306	45	190	...	...
Sitabaldi . . .	51	...	...	...	1	38	...	10	...	...	...	...	...	1	4	2	...	2	27	119	17	...	1	9	...	...
Belgam . . .	1,160	...	...	...	8	94	4	...	...	...	7	11	3	15	24	...	2	9	718	1,351	392	...	173	153	1	...
Secunderabad . . .	2,941	...	...	...	96	330	6	41	...	16	12	48	10	116	137	25	3	98	1,656	3,864	763	5	312	576	1	1
Jubbulpore . . .	845	...	...	...	28	600	14	...	...	1	3	7	7	35	60	14	6	35	493	1,575	97	189	72	135	2	...
Saugor . . .	358	...	2	...	2	207	4	2	1	...	3	2	1	7	6	3	2	9	304	734	18	125	28	133	...	...
GROUP IX.—DECCAN.	10,157*	86	16	4	235	2,693	76	95	3	20	38	78	34	258	326	136	24	239	5,559	13,380	1,716	942	1,043	1,858	9	1	
Colaba . . .	1,212	...	...	...	2	107	12	108	...	2	6	1	2	...	11	37	1	10	461	1,327	102	148	58	153	...	...
Cannanore . . .	96	...	...	...	13	1	3	8	...	1	...	...	...	1	...	...	...	2	30	92	7	2	5	16	...	...
Calicut . . .	101	...	...	...	5	7	...	6	...	1	1	...	...	1	2	...	...	2	54	125	15	14	4	21	...	...
Mallapuram . . .	143	...	...	...	7	3	...	4	...	1	2	...	...	...	1	...	...	...	108	184	13	18	35	42	...	...
GROUP X.—WESTERN COAST.	1,556*	...	...	...	27	118	15	126	...	5	9	1	2	28	14	37	1	14	653	1,728	137	182	102	232	...	...

* Derived from the aggregates.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.												2. DEATHS.						3. CONSTANTLY SICK.											
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.	Tania.	Other Entozoa.					
Madras	556 {	2 10	...	...	2 38	71 211	1 10	...	2 31	...	4 18	1 26	1 02	13 53	27 124	3 17	4 76	25 96	411 737	869 2540	103 153	54 175	70 130	184 279	...	...			
St. Thomas' Mount	321 {	...	...	...	3 42	18 48	1 17	41 165	...	...	2 16	1 13	2 02	5 11	11 77	...	1 03	21 93	98 585	359 1848	32 221	16 90	22 128	28 145	3 07	...
Pallavaram . . .	61 {	1 01	...	...	2 21	3 11	...	3 11	...	...	1 03	...	1 05	2 04	6 16	1 02	...	2 10	29 184	77 379	4 28	...	6 42	19 114	1 05	...	
Bangalore . . .	1,951 {	1 06	4 01	17 40	47 555	64 222	37 243	79 345	2 48	...	15 90	5 63	11 89	25 187	65 429	16 60	2 42	57 362	896 9247	2,078 16893	351 3495	25 273	183 2393	331 3087	...	1 03					
Bellary	671 {	...	...	...	3 87	130 440	...	...	...	1 06	4 43	3 55	1 13	1 95	12 72	...	...	4 11	348 3033	912 6269	163 1209	8 51	62 977	115 796	...	...			
GROUP XI.—SOUTH- ERN INDIA.	3,561 {	4 17	4 01	17 40	57 743	286 932	39 270	123 521	4 79	1 06	26 170	10 257	16 111	59 350	121 718	20 79	7 132	109 595	1,782 13786	4,305 27929	653 5105	104 589	348 3569	677 4422	4 13	1 03					
Ranikhet . . .	1,040 {	6 13	...	...	75 982	130 488	4 26	48 255	1 33	...	27 267	8 38	6 64	42 111	38 228	41 157	2 03	13 93	702 6045	1,563 10933	349 3363	...	188 1873	165 809	2 04	...			
Chaubattia . . .	329 {	...	...	...	1 15	9 23	1 08	5 31	1 03	...	8 26	...	...	10 3	4 44	11 45	...	5 88	252 1720	427 2711	109 664	9 38	86 641	48 377	...	...			
Chakrata . . .	913 {	...	...	...	8 156	103 483	11 132	...	...	...	11 137	4 50	2 13	26 115	19 146	13 56	...	35 194	693 5463	1,259 8822	294 2532	109 840	132 1028	158 1063	1 05	...
Lagshai	785 {	30 91	...	...	41 654	147 664	...	26 120	3 31	...	11 93	5 77	5 66	23 90	9 58	64 238	...	19 172	273 2852	1,090 7767	41 560	51 486	68 773	113 1033	5 08	...			
Solon	209 {	...	...	...	3 31	38 137	...	1 06	1 14	...	...	5 40	...	...	4 16	14 43	...	9 46	110 992	279 1664	48 373	...	39 448	23 171	1 03	...
Subattu	448 {	...	...	...	109 1543	96 325	4 15	5 11	7 42	...	5 35	2 37	1 07	5 33	13 96	9 17	3 26	4 25	218 1717	764 5026	129 1005	...	21 210	68 501	1 01	...		
Jutogh	235 {	...	...	...	10 208	53 183	5 70	...	3 40	...	7 69	...	...	1 05	11 65	5 17	3 27	3 16	87 713	298 2017	39 300	1 23	19 180	28 210	...	...			
Khyragully . . .	67 {	...	...	...	1 03	14 34	...	...	...	...	1 01	...	...	1 01	...	...	...	1 05	20 132	79 366	5 38	1 03	3 12	11 79	...	...			
Baragully . . .	51 {	...	...	...	...	3 08	...	...	...	...	...	...	...	...	...	...	...	...	16 101	43 184	4 24	...	7 30	5 47	...	...			
Kuldunnah . . .	484 {	...	...	...	2 07	58 184	...	...	...	...	12 169	2 72	5 49	8 38	...	32 86	...	6 33	202 1658	540 3720	67 527	...	31 323	104 808	...	...			
Kalabagh . . .	50 {	...	...	...	...	17 39	...	...	...	...	2 09	...	1 12	1 01	1 06	...	...	...	12 86	50 231	7 45	...	3 12	2 29	...	...			
Camp Gharial . .	450 {	...	...	...	3 32	129 463	1 11	1 08	3 13	1 02	2 03	...	1 12	11 22	5 23	21 76	...	3 34	131 936	550 2755	55 334	1 40	46 412	29 150	1 08	...		
„ Thobba . . .	314 {	...	...	...	2 45	85 253	...	...	...	...	1 03	...	1 09	11 40	1 12	17 50	...	8 57	144 807	522 2329	39 191	...	53 356	52 260	...	...			
„ Lower Topa . .	130 {	...	...	...	2 43	18 82	...	...	2 34	...	...	...	...	...	6 49	...	...	2 14	31 246	113 732	15 127	...	9 75	7 44	...	...			
Ghora Dhaka . .	154 {	...	...	...	...	20 48	...	...	1 12	...	1 02	...	...	10 31	3 35	...	...	5 43	34 235	119 647	9 96	...	9 50	16 89	...	...			
Cherat	593 {	...	...	...	17 407	43 334	13 183	...	1 18	5 28	2 13	2 37	...	1 08	5 24	13 64	...	...	43 485	229 2133	6 81	17 113	7 125	13 166	1 02	...
Quetta	2,315 {	3 43	140 3035	452 1865	23 210	19 117	4 69	...	13 124	5 85	14 134	49 276	34 295	49 215	2 16	14 90	1,167 12683	3,066 25624	326 3860	254 2401	208 2510	379 3812	7 18	...					

* Derived from the aggregates.

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TABLE IV—continued.

ACTUALS of STATIONS, GROUPS and COMMANDS on which the ratios in Tables I—III have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.					3. CONSTANTLY SICK.									
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.	Tania.	Other Entozoa.
Ramandrug . . .	24 {	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	7	20	4	...	1	2	...	...
Bernardmyo . . .	185 {	...	...	...	...	23	2	...	...	...	...	...	...	1	...	...	...	5	57	127	12	7	25	13	...	...
GROUP XIIa.—HILL STATIONS.	8,776 {	36	...	3	414	1,438	64	105	27	6	103	33	36	200	155	289	10	133	4,199	11,138	1,558	450	955	1,236	19	...
Darjeeling . . .	523 {	...	...	...	...	59	3	...	...	...	...	...	...	11	10	30	1	10	187	511	56	20	63	48	1	...
Naini Tal . . .	135 {	...	...	...	...	20	3	...	...	...	...	...	...	8	2	7	1	4	57	156	14	1	15	27	...	...
Landour . . .	164 {	...	...	...	...	37	...	...	...	...	...	...	...	2	4	2	2	5	54	158	28	1	19	6	...	...
Pachmarhi . . .	113 {	...	...	...	...	61	18	6	...	...	...	...	...	3	15	1	3	4	54	256	6	9	5	34	...	...
Kasauli . . .	374 {	...	...	...	...	72	...	8	...	...	...	...	...	11	19	13	3	9	177	564	48	...	56	73	3	...
Dalhousie . . .	828 {	...	...	...	...	16	146	2	2	1	...	...	...	13	8	21	...	11	302	790	146	5	78	73	...	...
Murree . . .	81 {	...	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	...	3	22	1	...	2	...	...	...
Taragarh . . .	42 {	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	28	51	9	...	13	6	...	...
Mount Abu . . .	72 {	...	...	...	...	45	...	2	...	...	...	...	...	2	2	7	...	1	19	104	1	1	14	3	2	...
Purandhur . . .	118 {	...	...	...	...	34	...	...	...	...	...	...	...	2	2	2	...	2	50	138	2	8	35	5	1	1
Khandalla . . .	91 {	...	...	...	...	13	...	...	...	...	...	...	...	6	1	1	...	1	42	93	6	7	26	3	...	...
Wellington . . .	1,049 {	45	...	...	...	145	53	...	1	...	10	...	2	29	18	21	1	13	420	1,454	152	1	119	148	3	1
GROUP XIIb.—HILL CONVALESCENT DEPÔTS AND SANITARIA.	3,591 {	45	...	2	37	642	79	19	3	...	26	14	11	89	81	105	12	61	1,393	4,297	469	53	445	426	10	2
Troops marching, Bengal.	591 {	...	7	1	15	52	5	6	...	...	1	...	7	22	13	2	...	6	304	579	111	54	48	91	...	...
Troops marching, Punjab.	386 {	...	...	...	...	42	2	1	...	...	1	...	12	9	8	7	...	1	75	260	37	3	10	25	...	...
Troops marching, Madras.	58 {	...	...	...	...	1	...	10	...	...	...	...	...	1	2	2	...	1	2	50	1	...	1	...	...	...
Troops marching, Bombay.	137 {	...	...	...	...	18	1	...	...	...	...	...	...	...	6	1	...	2	48	113	23	10	3	12	...	...
Deolali Depôt . . .	860 {	...	1	2	26	319	9	7	1	7	107	68	11	30	50	22	8	39	589	1,843	85	78	244	182	...	...
Poonamaltee Depôt . . .	177 {	...	...	...	...	5	...	8	...	...	2	20	1	3	29	1	3	18	82	256	9	1	59	13	...	...
Aden . . .	1,026 {	...	...	...	...	264	3	5	...	4	11	2	1	14	25	4	1	40	416	1,274	64	93	103	156	1	...
INDIA.	* 70,484	47	...	7	210	506	26	26	4	5	62	117	82	202	134	27	14	87	3,022	6,212	992	419	648	963	2	...
† Remaining from 1895.	808	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
‡ Died out of Hospital.	63	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
§ Died out of Hospital.	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
|| Constantly sick.	61	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
¶ Average duration of a case in days.	27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Derived from the aggregates.

† Remaining + admitted = total treated; Remaining + admitted + died out of hospital = total cases.

COMMANDS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.					3. CONSTANTLY SICK.									
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.	Tania.	Other Entozoa.
BENGAL . . .	* 22,457	360 1 9'52	41 33 '64	48 3 4'83	679 173 91'65	5,158 5 182'43	326 10 24'66	740 ... 46'07	11 ... 1'51	67 19 3'92	266 17 30'11	87 18 15'22	114 13 10'73	543 1 29'77	792 19 56'12	481 1 16'47	72 47 6'89	490 ... 35'02	13,079 7 1,156'24	32,246 420 2,250'52	4,058 ... 376'08	1,661 ... 121'61	2,375 7 259'01	4,985 ... 399'54	61 ... 2'70	3 ... '09
PUNJAB . . .	* 18,823	126 6 7'24	3 3 '02	36 2 3'42	488 115 71'31	4,853 ... 217'05	366 13 26'01	489 ... 23'08	46 ... 4'43	122 20 6'46	129 5 13'16	61 8 14'87	142 21 14'43	572 ... 27'81	261 7 20'79	442 ... 16'16	26 16 2'79	229 ... 15'03	74,35 1 635'54	24,138 256 1,579'04	2,229 ... 202'09	958 ... 75'43	1,351 1 139'68	2,897 ... 218'34	58 ... 1'93	3 ... '08
MADRAS . . .	* 13,488	305 ... 43'64	6 6 '02	19 2 1'56	227 57 32'59	1,458 ... 58'57	127 ... 11'38	651 ... 22'51	8 ... 1'75	32 4 3'01	98 5 8'83	102 7 20'24	45 2 4'46	330 2 19'77	482 8 35'44	131 ... 4'35	21 11 3'29	477 1 33'89	7,099 4 651'35	18,021 132 1,335'45	2,941 ... 265'57	206 ... 15'65	1,476 3 169'32	2,476 1 200'81	25 ... '69	8 ... '29
BOMBAY . . .	* 15,716	17 1 '63	20 21 '10	19 3 1'68	401 100 64'31	5,379 2 182'99	158 5 12'42	231 ... 15'48	11 ... 1'32	47 6 1'85	199 9 12'30	102 12 9'41	68 9 5'49	388 6 17'82	306 13 15'38	365 ... 13'38	34 12 2'45	303 1 18'64	8,445 2 719'30	23,333 238 1,449'73	2,000 ... 178'40	1,908 ... 153'16	1,686 2 170'21	2,851 ... 217'53	34 ... '63	1 ... '01

GROUPS AND COMMANDS.		1. STRENGTH.					2. CONSTANTLY SICK.						TOTAL.	
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.		Dec.
GROUP	I.—BURMA COAST AND BAY ISLANDS,	1,231	1,423	1,376	1,337	1,334	1,319	1,304	1,318	1,309	1,289	1,202	1,278	15,720
		156'96	127'69	160'33	133'47	131'81	148'93	153'58	160'84	182'97	184'29	137'34	140'32	1,818'53
"	II.—BURMA INLAND	2,444	2,398	2,854	2,714	2,729	2,776	2,763	2,715	2,728	2,714	2,609	2,702	32,146
		297'84	268'75	280'81	291'64	291'99	322'78	327'86	314'35	313'89	315'54	258'76	279'24	3,563'45
"	IV.—BENGAL AND ORISSA	2,649	2,501	2,367	2,450	2,463	2,422	2,385	2,391	2,338	2,383	2,701	2,470	29,520
		225'87	195'83	177'36	187'17	198'64	199'27	210'19	212'84	187'76	167'81	204'63	183'29	2,350'66
"	V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	8,193	7,549	8,010	7,700	7,275	7,199	7,221	7,189	7,184	7,237	7,598	7,554	89,909
		852'98	768'20	779'09	784'50	742'55	684'51	718'18	723'62	725'47	721'75	795'31	761'14	9,057'30
"	VI.—UPPER SUB-HIMALAYAN.	18,920	19,019	17,971	13,894	10,665	10,558	10,476	10,522	10,563	12,596	18,746	18,753	172,683
		1,974'22	1,881'97	1,708'92	1,224'50	984'02	930'62	965'07	937'92	972'49	1,166'58	1,589'54	1,602'48	15,938'33
"	VII.—NORTH WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA.	5,677	5,497	5,320	5,339	4,331	4,100	4,024	3,970	4,024	4,576	5,616	5,564	58,038
		573'01	535'94	443'29	397'50	360'58	399'27	466'51	430'38	430'17	458'90	542'93	478'23	5,516'71
"	VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA AND GUJARAT.	6,605	6,489	6,754	6,712	6,550	6,500	6,495	6,506	6,596	6,205	5,931	5,935	77,278
		784'74	823'10	771'51	718'86	718'90	737'66	730'03	844'02	948'25	772'09	732'93	699'62	9,281'71
"	IX.—DECCAN	9,486	10,183	10,024	10,279	10,059	10,118	10,165	10,104	10,096	10,333	10,477	10,561	121,885
		974'88	967'21	924'71	900'11	842'98	829'13	901'24	953'92	968'80	890'54	897'57	885'63	10,936'72
"	X.—WESTERN COAST	1,719	1,688	1,757	1,475	1,432	1,474	1,462	1,447	1,449	1,515	1,650	1,602	18,670
		168'86	170'61	161'19	136'80	109'83	112'86	96'22	87'68	88'10	102'02	113'56	112'12	1,459'85
"	XI.—SOUTHERN INDIA	3,836	3,839	3,653	3,512	3,403	3,418	3,477	3,481	3,466	3,483	3,584	3,574	42,726
		327'22	333'33	321'55	264'26	224'84	231'93	246'94	265'65	258'43	284'97	312'62	279'63	3,351'37
"	XIIa.—HILL STATIONS	2,883	2,989	4,008	8,961	13,721	14,050	14,014	13,927	13,657	10,308	3,710	3,086	105,314
		276'52	253'96	355'03	813'37	1,195'02	1,238'73	1,242'92	1,281'94	1,223'89	852'03	440'20	259'54	9,433'15

* Derived from the aggregates.

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TABLE IV —concluded.

GROUPS AND COMMANDS.	1. STRENGTH.						2. CONSTANTLY SICK.						TOTAL.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
GROUP XIIb.—HILL CONVALESCENT DEPÔTS AND SANI- TARIA.	1,373 78'10	1,350 74'48	2,060 173'42	4,069 400'55	5,515 527'02	5,473 523'32	5,412 524'83	5,317 482'56	5,123 419'71	3,780 309'08	2,014 191'69	1,602 107'88	43,088 3,812'64
INDIA	70,146 6,933'05	70,224 6,661'69	70,182 6,570'21	71,265 6,471'95	71,109 6,519'89	70,951 6,543'57	70,739 6,767'54	70,423 6,876'92	70,314 6,896'48	70,238 6,514'46	70,324 6,529'49	69,891 6,091'61	845,806 79,376'86
BENGAL	22,967 2,351'22	22,986 2,215'72	21,999 2,143'00	22,883 2,272'72	22,843 2,274'33	22,701 2,239'62	22,667 2,261'24	22,635 2,367'54	22,608 2,376'73	22,029 2,159'24	21,772 2,214'81	21,388 2,128'83	269,478 27,005'00
PUNJAB	17,945 1,785'46	18,273 1,662'21	18,632 1,592'08	19,317 1,468'24	19,432 1,609'31	19,476 1,624'47	19,394 1,744'57	19,243 1,617'78	19,186 1,603'52	18,665 1,493'27	18,674 1,472'45	17,641 1,275'42	225,878 18,948'78
MADRAS	13,137 1,396'94	13,688 1,341'30	13,656 1,342'74	13,699 1,292'26	13,697 1,295'25	13,670 1,343'61	13,607 1,400'79	13,516 1,362'17	13,445 1,359'49	13,218 1,339'31	13,135 1,266'54	13,392 1,285'88	161,860 16,026'28
BOMBAY	16,097 1,399'43	15,277 1,442'46	15,895 1,492'39	15,366 1,438'73	15,137 1,341'00	15,104 1,335'87	15,071 1,360'94	15,029 1,529'43	15,075 1,556'74	16,326 1,522'64	16,743 1,575'69	17,470 1,401'48	188,590 17,396'80

TABLE V.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

The ratios of sickness and mortality will be found in Table III.

STATION.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Barrackpore	Bengal	Malarial fevers, dysentery and an unusual amount of enteric fever were prevalent. The prevalence of malarial fevers is due to the low-lying nature of the ground, water-logged soil, heat and moisture. Dysentery has probably been connected with the existence of a large number of vibrionic organisms in the station reservoir, owing to defects in construction, which permitted a certain accumulation of sediment. This has been remedied. The causation of the enteric fever has not been ascertained. The level of the cantonment is lower than the surrounding parts, and portions of it are extremely wet and marshy during the rains. Only the overflow from these marshes finds its way directly to the main drain. There is an entire absence of deep <i>pucca</i> drains; those which are <i>pucca</i> are faulty, and the vast majority of drains are <i>kutchas</i> , shallow, choked, irregular and insufficient. To these conditions the prevalence of a disease like ague is attributable. The drainage of the <i>sadar</i> bazar is utterly defective, but a rough scheme has been submitted, which however has not yet been approved of. A general overhauling of the drainage is urgently demanded, and specially of the drainage in the vicinity of the barracks.
Benares	„	There was prevalence of malarial fevers, enteric fever and cholera among the Europeans; and the chief causes of mortality were the two latter diseases. Fevers and dysentery are due to climate; venereal disease to contagion; enteric fever to contaminated dust, flies acting as carriers. Cholera is always more or less epidemic. No particular cause could be assigned for the outbreak in March. It was the only unusual sickness, and far in excess of previous years, and was confined to the Europeans. Enteric fever has been much the same as in 1895, but in that year it was excessive. Since the outbreak of cholera in March the drinking water has been taken from a municipal stand-pipe, filled into casks through a hose, carried to barracks, and distributed to the various galvanised barrels in which the filters formerly stood. The question of incinerators for the disposal of filth is now under the consideration of the committee.
Fyzabad	„	There was more ague and dysentery amongst the Royal Sussex Regiment as compared with the number of cases from these diseases in other years. This is accounted for by the regiment's having come to this station in December 1895 from Dum Dum, where it had suffered much from these diseases. The drinking water is obtained from covered-in-wells which cannot easily be contaminated. The bakery-well water was found by the Chemical Examiner, Mr. Hankin, to contain cholera microbes and has been closed. The water for making bread is now obtained from the R. A. drinking-water well.
Lucknow	„	It has not been possible to trace the cause of enteric fever in particular instances; but every year shows how readily the water, milk, cheese and other articles of food can become contaminated by the enteric bacillus, chiefly through the filthy habits of the natives (cooks and others) with whom the soldier is brought in contact. There can be no doubt also that where he contracts venereal disease, there he also contracts enteric fever. There has been no unusual prevalence of sickness in the European troops as compared with other years.
Cawnpore	„	As compared with other years, dysentery was more prevalent and equally spread throughout the corps. There is no proper system of drainage in the bazars; the matter is under the consideration of government. The water is generally good and plentiful, but the wells should be supplied with covers. The necessary steps are being taken to have this carried out. The questions regarding the demolition of <i>mohallas</i> , extension of the water works to cantonments, and drainage are under the consideration of government.
Allahabad	„	The enteric fever broke out in the 1st Norfolk Regiment in February and lasted till the end of April, and again appeared towards the end of December. On both occasions the filter beds of the municipal water-supply were found to be infected with the enteric microbe. The bazars and the excessive dryness of the year also were doubtless potent factors in the causation and the spread of the disease. This regiment has never previously served in the plains and was almost entirely composed of very young and immature lads. The quality of the water as a rule is excellent, except for the finding of the enteric microbe on two occasions. The well water elsewhere is good and sufficient. The municipal water-supply has recently been extended to the fort.

TABLE V—*continued.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

The ratios of sickness and mortality will be found in Table III.

STATION.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Delhi	Bengal	The troops chiefly suffered from venereal and malarial diseases, and the women and children from the latter. The proximity of the river bed of the Jumna and the large tract of country rendered more or less swampy in the rains cause malarial fevers, which are almost certain to occur whenever the flooded lands begin to dry. There was no unusual sickness. In fact the year was a healthier one than usual. Malarial fevers prevailed to a much smaller extent than in previous years owing to the dryness of the season.
Roorkee	"	Venereal diseases and malarial fevers were most prevalent. There was no special cause of the diseases nor unusual sickness.
Jhansi	"	Cholera, which was imported, was unusually prevalent. The infantry suffered more, in consequence of the disease being brought by recruits joining the regiment from England. A system of permanent surface drains in the <i>sadar</i> bazar is much needed. The sanitation of the villages and outskirts of the city north of the cantonment is a source of anxiety. They were scourged by cholera last year. Many of their inhabitants applied for permission to enter the cantonments, which was refused.
Agra	"	There was prevalence of venereal diseases throughout the year and of enteric fever during September and October. The latter was almost certainly caused by contamination of the municipal water-supply, which is conveyed from the river to the municipal pumping station in an open channel. This channel has to be dug out by gangs of coolies at intervals, when the river is low. The enteric microbe was constantly found in the municipal water-supply. The cantonment has been so demarcated as to include a large number of native bazars and villages, which are kept as clean as possible; but their existence within cantonments must always be objectionable.
Jubbulpore	"	Both venereal diseases and ague have been more prevalent this year. The water-supply from the Jubbulpore water works is sufficient and of good quality, with the exception that Mr. Hankin detected the cholera microbe in a quiescent state and the enteric germs. Native workmen at the reservoir may be a source of the introduction of these germs into the water. There are no other apparent sources of contamination. There is a very insanitary village in cantonments holding 1,035 persons, of whom some 30 only are in any way required. These persons have lived here for years, and a full conservancy plant and establishment have been provided for them, without improving the condition of the village. The village contains 259 houses in all, of which 46 have been recently demolished, the owners thereof being paid compensation out of cantonment funds. There is also another small settlement close to the above, which it is also very desirable to remove on sanitary grounds; but for this purpose no funds are available. The drainage of the <i>sadar</i> bazar, referred to in last year's report, has been improved during the year as also have the watering and lighting of the roads.
Saugor	"	Malarial fevers have been the most prevalent diseases among the population generally (Europeans and natives). Among the European troops venereal diseases have been unusually predominant. There was rather more ague prevalent this year than in some former ones, but not much. It does not seem to have been specially confined to any particular corps, but to have been universal.
Naini Tal	"	No special disease has prevailed during the year, unless it be venereal among the men. Many cases of venereal disease, specially of secondary syphilis, were received as convalescents from the plains, and some individuals gave repeated admissions extending over the whole of the hot season. Besides the cases received from the plains, many men contracted venereal diseases in this station. The native population in the hills is largely infected with this class of disease, and there is no check over them. The water-supply is drawn from the lake. It is passed through filter beds, and all boiled before use. No disease has been traced to its use, and, in fact, its quality is good and quantity unlimited. The lake, however, being very liable to contamination, specially in the rains, an extension of the municipal pipe supply to the depôt is very desirable. The Gurkhas use this latter supply.
Pachmarhi	"	Malarial fevers, dysentery and venereal diseases were most prevalent among the European population. Regarding the prevalence

STATION.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Pachmarhi— <i>contd.</i>	Bengal	<p>of malarial fevers, Surgeon-Major Milward (late in charge) states:—"Pachmarhi is undoubtedly feverish, especially in the autumn, and the climate is subject to diurnal variations of temperature, which excite fevers by producing chill, especially in the case of men who are sent here from malarious stations, and who have suffered already from repeated infection." The cases of dysentery were principally relapses occurring in men who had suffered from this disease in the plains. Venereal diseases are prevalent from obvious reasons. An incinerator of the Garlick or other pattern has been proposed for the destruction of night soil, etc., from the cantonment and civil lines. The population of this station is increasing, and trenching ground at a convenient distance is limited in area, and it is considered that the use of an incinerator would be the most suitable and efficient system. The increase of barrack accommodation for British troops is very desirable, to avoid the necessity of the men dining in the verandahs, especially during the monsoon.</p>
Meean Meer	Punjab	<p>Amongst the European troops ague and venereal diseases were most prevalent. There was considerably less sickness than in the previous two years. The water-supply is liable to pollution before being delivered into the cantonment during its transit from the river Ravi to the cantonment water works. The chief defect at present is the system of <i>dhobi ghats</i>. These receive water usually from a branch of the Bari Doab canal; but as this branch of the canal is often closed for long periods, the supply is precarious; and washermen then resort to the nearest supply they can find, whether suitable or not. To remedy this the cantonment authorities have built a very fine set of <i>ghats</i>, the water for which will be taken from wells; and it is hoped this new system will speedily be brought into use. The Allahabad system of disposing of night soil is well carried out and very satisfactory. The water-supply is not a pure one. When the canal from which it is drawn is closed for long periods, the supply in the reservoirs becomes low and very doubtful in quality. A full supply of good pure water at the rate of 20 to 25 gallons per head of population is a great desideratum. Arrangements are being made to obtain water from the Lahore municipal supply.</p>
Rawalpindi	"	<p>The cause of enteric fever is not traceable. But the bazars were suspected. The prevalence of pneumonia is due to the cold in January, February, November and December; heat-apoplexy to the heat in June and July; remittent fever to climate. After the rains, the drainage of many portions of the station is defective. The water-supply is good and abundant, brought in pipes to standposts. The bazars in the old cantonments are overcrowded. The villages just outside the cantonment are in a filthy state, and so long as they exist in their present condition, the place will not be healthy for troops. The overcrowded state of the <i>sadar</i> and <i>lalkoti</i> bazars, specially the latter from its proximity to the lines and hospital, urgently requires improvement. This could be done by throwing down some of the existing houses, and providing open spaces. <i>Dhobi ghats</i> are urgently required. Steps are being taken to remedy, if possible, the overcrowding of the bazars.</p>
Nowshera	"	<p>In the Argyll and Sutherland Highlanders ague was the most prolific source of admission, enteric fever the chief cause of mortality. In the British infantry lines, the drainage from the wash-houses is defective, and in the native infantry lines, there is no proper system of drainage. The soil is, however, very porous, and water does not lie long. There are no <i>jheels</i> or <i>marshes</i> in the vicinity. The drains in the <i>sadar</i> bazar have been well attended to. Improvements are in progress. The water-supply is good and abundant. There are no apparent sources of contamination. The barrack accommodation of the 38th Dogras is insufficient during the cold weather. The capacity, according to the authorised cubic space, is 584, while the maximum number occupying the barracks was 782. The accommodation for the remaining troops in the station is sufficient.</p> <p>The District Principal Medical Officer remarks :—</p> <p>Concrete drains are required in the British infantry lines to carry off the waste water from the lavatories and bath rooms. The drainage generally of the British and native infantry lines is defective, but a thorough system of drainage for both would entail very great expense. Either additional barrack accommodation is required for the native infantry, or the existing barrack should be heightened some 4 feet to give the men the regulation cubic air space.</p>

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TABLE V—continued.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

The ratios of sickness and mortality will be found in Table III.

STATION.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Dagshai	Punjab	<p>There was prevalence of venereal diseases, ague, diarrhoea, enteric fever, erysipelas, sore-throat, quinsy and follicular tonsillitis, and an epidemic of influenza, amongst the Europeans. The general health of the troops was bad, due to venereal diseases and epidemics of enteric fever and influenza. The <i>bacillus typhi abdominalis</i> was detected by Mr. Hankin in three out of four samples of the Dagshai drinking water, submitted to him for analysis in July. Influenza occurred during January and February, which are cold months, and are favourable to the spread of the disease. Measles and chickenpox were probably the result of infection, for both the diseases are contagious in a high degree. The increasing attendance of the bazar population at the station followers' out-door dispensary may account for the diminution in the admissions for venereal diseases. The epidemic of enteric fever was water-borne; and the enteric microbe was probably introduced from the plains or the road between the plains and Dagshai. The first few cases of enteric fever were certainly not contracted at this station, for they occurred almost immediately after the arrival of troops from Umballa early in April. The large number of admissions for sore-throat and several severe cases of erysipelas occurring about the same time as the epidemic of enteric fever appear to be points worthy of special notice, together with the prevalence of diarrhoea. A certain temperature of the soil is necessary for the cultivation of the enteric microbe, and the history of the Dagshai epidemics of enteric fever supports this, as during the past 14 years April to October have been the months during which enteric fever has prevailed at this station. The use of permanganate of potash and the boiling of drinking water during 1896 have in no way altered the history of the Dagshai enteric fever. Permanganate of potash was added to all drinking water from 18th July, and the boiling of drinking water practised from 28th August. Enteric fever ceased as usual in October. Not a single case of this disease has occurred in the military prison during the past 14 years: and it is remarkable that the same water, milk and food in every detail are supplied to the prisoners as are given to the troops. The absence of enteric fever in the military prison may be due to the fact that the building is on the north side of the hill, and cooler than the blocks of barracks which are on the south side, and to the scrupulous cleanliness of receptacles for water and cooking utensils. The water-supply is obtained from four springs in the hill side. The springs are built up and furnished with masonry tanks and stop-cocks. The chemical analysis of the water was satisfactory, but the bacteriological examination made by Mr. Hankin resulted in the detection of enteric microbes. The quantity of filth buried on the hill in past years was probably considerable; the native bazar is a large one with a population of 3,990; and the barracks and private houses are numerous. With the geological formation of the place it is very possible that there are fissures in the rock communicating directly between the surface and the springs. It is a defect for the population to obtain its water-supply from under ground on which so many habitations stand and so much filth has been buried. The method of distribution of the water by <i>pakhals</i> and <i>mussacks</i> is insanitary. The solid excreta were destroyed in a "Garlick" and two "Henry" incinerators, but there is no provision in them for the destruction of urine, which is a very grave defect, as the urine of enteric patients contains very large quantities of specific microbes. The urine was all emptied at the "urine shoots". Mr. Hankin made an analysis of two samples of butter and one of milk in May, but no enteric microbes were detected in any of them.</p> <p>The District Principal Medical Officer remarks:—</p> <p>Enteric fever has caused the greatest mortality amongst the troops during the year and for many years past this has been the same. The germs of the disease seem to be endemic in the station. Certainly the Chemical Examiner and Bacteriologist to Government has detected the enteric microbe in the water supply, but this can scarcely be the cause of the disease, as the prisoners in the military prison, and the women and children, who used the same supplies of food and water as the rest of the garrison, entirely escaped the disease. The causation must be from some other sources, but those are involved in doubt, and it is most difficult to suggest a measure that will eradicate it. I am of opinion that the best course to pursue would be for government to appoint a commission of experts to enquire into the sanitary condition of both Dagshai and Subathu and then act on their advice.</p> <p>The General Officer Commanding the District remarks:—</p> <p>The sanitary condition of Dagshai is fairly good. Information is being obtained with a view to preparing estimates showing the cost of bringing water into the station from some outside source by means of pipes.</p>

STATION.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Subathu	Punjab	<p>The unusual prevalence of enteric fever may be attributed to two factors :—</p> <p>I. By far the most important is the unsatisfactory nature of the water-supply, which is defective in quality, quantity and method of distribution. It was found to have become contaminated by percolation at its source, and to contain the enteric bacillus and sewage; was unusually scanty owing to the failure of the monsoon; and was distributed to the barracks by means of <i>mussacks</i> and <i>pakhals</i>, which are often in themselves a means of contamination, and which, once fouled, are exceedingly difficult to purify.</p> <p>II. The fact of the regiment having recently arrived in the country may have had some influence in rendering the men more predisposed to take the disease.</p> <p>The water-supply is deficient in quantity, specially during the dry season, when it becomes very scanty for the bazar. The method of distribution by contractors' <i>pakhals</i> is faulty, and liable to contaminate the water. A supplementary water-supply with pipe distribution is an urgent need. The incinerator, which has been built to destroy the refuse and night soil of cantonments, is adequate for its purpose in the winter, but is unable to cope with the large extra amount of filth when the troops are up. A large proportion of this is therefore buried; but the ground used for this purpose is unsuitable for cropping, and the trench system can therefore only be imperfectly carried out. An enlargement or modification of the existing incinerator to enable it to deal with the whole of the filth in the summer would, it is believed, not be a difficult or costly operation, and would be a great sanitary improvement.</p> <p>The District Principal Medical Officer remarks :—</p> <p>It is difficult to account for the immediate cause of the enteric fever, as on a survey of the epidemic many conflicting facts exist. Mr. Hankin detected the enteric bacillus in No. 1 reservoir, which supplied the water to the troops. But if this was the sole cause, it is a remarkable fact that the women and children who drank the same water, escaped altogether. I do not doubt that the water was most probably contaminated, as at one of my inspections I found that the thick jungle around the reservoir converted the place into a perfect latrine for the use of the muleteers. The water-supply is very deficient, but surveys for a new supply are, I am informed, now being made; I believe the wisest step would be for government to appoint a commission of experts to inquire into the sanitary state of both this station and Dagshai, and then act on their advice. A second incinerator seems necessary for the cremation of the excreta.</p>
Murree	„	<p>There was no unusual sickness. The water-supply from the new water works is abundant and of excellent quality. Contamination at the source, or in the course of distribution, is practically impossible. The health of the station has been very good. The sanitary arrangements are satisfactory and properly carried out.</p>
Bhamo	Madras	<p>The diseases which principally contributed to the admissions into hospital were dysentery, fever, and diarrhœa. The detachment of British troops which arrived here in January 1896 from Allahabad suffered chiefly from these complaints, which were undoubtedly the result of the malarious nature of the climate, heavy rainfall, emanations from the low-lying land south-west of the cantonments, which is annually flooded by the Irrawaddy, dense malarious jungle in the surrounding country, and other local causes not yet quite understood. The water-supply is drawn from the wells within Fort C. It is of good quality, and, being under close supervision, is peculiarly free from the danger of contamination from outside sources. In dry weather the water is apt to run low, and then all animals are watered from the Irrawaddy. The Senior Medical Officer considers the drainage of Fort C. defective as regards the disposal of the rainfall, which is excessive, and tends to soak into the soil.</p>
Cannanore	„	<p>The prevalence of enteric fever amongst the Europeans was due to its having been contracted away from the station, on the line of march, and it was the chief cause of mortality. There are no defects in the water-supply, either in quantity or quality, or in the modes of drainage and distribution.</p>
Calicut	„	<p>Fevers and venereal diseases were most prevalent. Most of the admissions for fever were of climatic origin. Paddy fields under</p>

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TABLE V—concluded.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

The ratios of sickness and mortality will be found in Table III.

STATION.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Calicut—contd.	Madras	cultivation are in the vicinity of the cantonment, and are more or less under water for a considerable portion of the year. The water-supply is sufficient and good; and the well for drinking water is free from contamination. The water from the well at the foot of the hill, which is used for bathing purposes, and in case of emergency for drinking purposes also, may be contaminated by a filthy tank near it. Steps are being taken to close this tank. The objectionable system of throwing the cantonment sewage into the sea is to be done away with, and an incinerator is now being built for the disposal of excreta, etc.
Mallapuram	„	The chief cause of mortality was enteric fever, which was probably due to bad water drunk during field service in connection with the Moplah outbreak. The water-supply is pure and good, from wells, which are very low from February to April. There is no source of contamination. A very dirty row of hovels exists near the Roman Catholic chapel. The question of acquisition of the row of native houses or rather huts, near the European barracks is under the consideration of the Government of India.
Poonamallee	„	The water-supply is plentiful. The water obtained for drinking purposes is good in quality, but, owing to its hardness, is boiled before use. The storage cisterns and vessels are washed out weekly by solution of potassium permanganate. No source of contamination to the water-supply exists, as the wells are suitably protected. The sanitation in the immediate neighbourhood of the barracks and hospital is very good; and the bazars and villages are very fairly clean. Wet cultivation exists in and around the cantonment, but does not seem to give rise to malarial fevers either amongst the troops or residents in the bazars; so that no measures are necessary.
Nasirabad	Bombay	Enteric fever prevailed throughout the year, but more specially in June and May, and was due probably to drinking impure Danta water, which contained the enteric microbe. Smallpox prevailed in March, April, May, and June, and throughout the Bombay presidency. The water-supply is very unsatisfactory both as regards quality and quantity. The drinking water for Europeans only is obtained from Dilwara well, about 3 miles distant, and is conveyed in casks and galvanised iron tanks. The water is very good; but the well is open to pollution; the casks are unsatisfactory, and the supply is very limited. The general water-supply is from the Danta wells, about 5 miles distant, brought in iron pipes, and distributed to the bazar, barracks and bungalows in pipes. The water contains the enteric microbe; and this is due, it is supposed, to contamination of the collecting ground. The supply is not nearly sufficient, and a larger allowance is suggested. The question of an improved water-supply has been under consideration; and, if Nasirabad is to continue to exist as a military cantonment, the expenditure of a large sum on the water works is very necessary, as the present sources of supply are both defective in quantity and quality. The state of the bazar is receiving the attention of the local authorities, and the necessary latrine accommodation and surface drainage will be supplied as funds permit.
Neemuch	„	Malarial fevers have prevailed and will always prevail here owing to local and climatic conditions. Venereal disease will always be common while women from places just over the border can compete with the bazar women. The water-supply of the bazar is bad and very scanty in the hot weather. Modes of contamination both in drawing and distribution are numerous. The European barracks, being built on the highest ground in cantonment, and being exceedingly draughty, are responsible for much of the fever the British troops suffer from, when taken in conjunction with the careless habits of the men.
Indore	„	The cause of the cholera is unknown, but it is always endemic in the town. The surface drainage at the officers' quarters, the barracks, and the hospital, requires improvement. The waste water drain from the cook-house terminates about 80 yards from the married quarters and the officers' quarters, where it forms a stagnant morass. It should be extended to avoid this. The improvements required have subsequently been sanctioned, and completed in March 1897.
Ahmedabad	„	The prevalence of malarial fevers is due to climatic causes, as well as to the emanations from the Lalli Tank; and of venereal dis-

STATION.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Ahmedabad— <i>contd.</i>	Bombay	eases to well-known causes. There was no unusual sickness; but the station has always been an unhealthy one. The municipal water is laid on in the British and native lines and the supply is excellent. The wells in the native infantry lines are periodically treated with permanganate of potash. Vegetables are hard to procure during the latter portion of the hot weather and early parts of the rains, and several cases of scurvy occurred amongst the British troops.
Deesa	"	There was no unusual sickness in the cantonment. The water supply is neither deficient in quantity nor inferior in quality. A pump has already been erected in the British infantry lines for drawing the drinking water, and distribution is made by water carts instead of <i>mussacks</i> .
Kirkee	"	There was prevalence of enteric fever from April to November, and of malarial fevers and venereal diseases throughout the year.
Quetta	"	The different European corps suffered from enteric fever about equally; and the prevalence of the disease is probably accounted for by the unusual heat and moisture, and by the large number of men frequenting the bazar under conditions favourable for contracting the disease.

TABLE VI.

INFLUENZA by months, stations, groups and commands.

TABLE VII.

CHOLERA by months, stations, groups and commands.

STATIONS,*	ADMISSIONS FROM INFLUENZA IN EACH MONTH.													ADMISSIONS FROM CHOLERA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Rangoon	52	32	44	5	...	...	...	...	13	1	5	15	167	...	...	...	...	1	...	...	...	...	...	...	...	1
GROUP I.—BURMA COAST AND BAY ISLANDS . . .	52	32	44	5	...	...	...	...	13	1	5	15	167	...	...	...	...	1	...	...	...	...	...	...	...	1
Fort Dufferin . . . . .	...	...	1	1	...	...	...	...	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	1
Shwebo . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP II.—BURMA INLAND.	...	1	1	1	...	...	...	...	...	...	...	...	3	...	...	...	1	...	...	...	...	...	...	...	...	1
Fort William . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2
Barrackpore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
GROUP IV.—BENGAL AND ORISSA . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	3
Dinapore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2
Benares . . . . .	...	...	1	4	...	...	...	...	...	...	...	...	5	...	...	12	...	...	...	...	...	...	...	...	...	12
Fyzabad . . . . .	...	...	...	...	...	...	...	...	19	...	...	...	19	...	...	...	...	...	...	...	...	...	...	...	...	...
Lucknow . . . . .	...	...	...	...	...	...	...	...	55	124	44	4	227	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR .	...	...	1	4	...	...	...	...	74	124	44	4	251	...	...	12	...	...	...	2	...	...	...	...	...	14
Bareilly	75	21	3	...	...	...	...	...	...	...	...	...	99	...	...	...	...	...	...	...	...	...	...	...	...	...
Roorkee . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Umballa	8	1	...	...	...	...	...	...	...	...	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Ferozepore	42	4	...	...	...	...	...	...	...	1	...	...	47	...	...	...	...	...	...	...	...	...	...	...	...	...
Meean Meer	10	...	...	...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Amritsar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Sialkot	14	...	...	...	...	...	...	...	...	...	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Rawalpindi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Campbellpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
GROUP VI.—UPPER SUB-HIMALAYAN	149	26	3	...	...	...	...	...	...	1	...	...	179	...	...	...	1	2	...	...	1	...	...	...	...	4
Peshawar	13	...	...	...	...	...	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WEST RAJPUTANA . . .	13	...	...	...	...	...	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Nowgong . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2
Jhansi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	10
Muttra	1	...	3	...	...	...	...	...	...	...	...	...	4	...	...	2	...	...	...	...	...	...	...	...	...	2
Nasirabad	4	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Neemuch	3	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Indore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2
Mhow	9	1	...	...	...	...	...	...	...	...	...	...	10	...	...	2	...	...	...	...	...	...	...	...	...	2
Ahmedabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
GROUP VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA, AND GUJARAT .	17	1	3	...	...	...	...	...	...	...	...	...	21	...	...	7	5	1	...	6	...	...	...	...	...	19
Ahmednagar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Poona . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	2	...	...	...	...	...	13
Belgam . . . . .	...	...	...	...	...	...	1	1	...	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Secunderabad . . . . .	...	1	76	4	...	...	1	1	...	...	...	...	83	...	...	...	...	...	...	...	...	...	...	...	...	...
Saugor . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	2
GROUP IX.—DECCAN . . .	...	1	76	4	...	...	2	2	...	...	1	...	86	...	...	...	2	...	...	12	2	...	...	...	...	16

* Stations where neither Influenza nor Cholera occurred are not shown in these tables. For the annual ratios see Table III.

STATIONS.	ADMISSIONS FROM INFLUENZA IN EACH MONTH.													ADMISSIONS FROM CHOLERA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Madras . . . . .	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Pallavaram . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Bangalore . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	1	2	1	...	...	...	...	4
GROUP XI.—SOUTHERN INDIA . . . . .	...	3	...	...	...	...	...	...	...	1	...	...	4	...	...	...	...	...	1	2	1	...	...	...	...	4
Ranikhet . . . . .	...	1	4	...	...	...	...	...	...	1	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Dagshai	30	...	...	...	...	...	...	...	...	...	...	...	30	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XIIa.—HILL STATIONS	30	1	4	...	...	...	...	...	...	1	...	...	36	...	...	...	...	...	...	...	...	...	...	...	...	...
Kasauli . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Wellington . . . . .	...	...	8	16	12	7	1	1	...	...	...	...	45	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XIIb.—HILL CONVALESCENT DEPÔTS AND SANITARIA . . . . .	...	...	8	16	12	7	1	1	1	...	...	...	46	...	...	...	...	...	...	...	...	...	...	...	...	...
Troops marching in Bengal .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	7
Troops marching in the Punjab	1	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Deolali Depôt . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
INDIA	262	65	140	30	12	7	3	3	88	128	50	20	808	...	...	28	9	6	1	22	4	...	...	...	...	70
BENGAL	76	22	11	4	...	...	...	...	74	125	44	4	360	...	...	26	8	2	...	5	...	...	...	...	...	41
PUNJAB	118	5	...	...	...	...	...	...	1	1	...	1	126	...	...	...	...	2	...	...	1	...	...	...	...	3
MADRAS	52	37	129	26	12	7	3	3	13	2	6	15	305	...	...	...	1	1	1	2	1	...	...	...	...	6
BOMBAY	16	1	...	...	...	...	...	...	...	...	...	...	17	...	...	2	...	1	...	15	2	...	...	...	...	20

TABLE VIII.

ENTERIC FEVER by months, stations, groups and commands.

STATIONS.*	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Port Blair . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	1
Rangoon . . . . .	...	...	2	...	...	3	4	3	1	2	...	1	16
GROUP I.—BURMA COAST AND BAY ISLANDS . . .	...	...	2	...	...	3	4	3	1	3	...	1	17
Thayetmyo . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Dufferin . . . . .	...	...	...	1	...	...	1	...	...	...	1	...	3
Shwebo	2	1	4	1	1	...	...	...	...	...	...	...	9
GROUP II.—BURMA INLAND.	2	1	4	2	1	...	1	...	...	...	1	...	12
Fort William . . . . .	...	...	3	3	...	1	...	1	1	...	1	...	10
Dum-Dum	1	1	...	...	...	1	2	1	1	1	1	1	10
Barrackpore . . . . .	...	...	2	4	2	6	4	3	3	...	1	...	25
GROUP IV.—BENGAL AND ORISSA	1	1	5	7	2	8	6	5	5	1	3	1	45
Dinapore . . . . .	...	...	1	2	1	...	...	...	1	...	1	...	6
Benares . . . . .	...	...	5	16	2	3	3	11	6	1	3	4	54
Fyzabad	3	1	3	...	6	...	1	9	2	2	10	2	39
Lucknow	2	...	6	14	5	4	...	4	4	2	4	12	57
Sitapur . . . . .	...	...	2	2	1	...	...	...	...	...	...	...	5
Fatehgarh . . . . .	...	5	4	...	...	...	1	...	...	...	...	...	10
Cawnpore	3	4	2	2	1	...	1	2	1	...	1	3	20
Allahabad	4	10	40	21	1	...	...	2	1	2	1	15	97
Fort Allahabad . . . . .	...	2	4	1	1	2	...	1	...	1	...	...	12
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR .	12	22	67	58	18	9	6	29	15	8	20	36	300
Shahjahanpur . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1
Bareilly	5	6	5	5	...	4	6	5	2	1	4	3	46
Meerut	9	4	2	4	8	5	2	1	6	2	4	20	67
Delhi . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1
Roorkee . . . . .	...	...	1	...	...	1	...	...	...	...	...	1	3
Umballa	4	1	4	3	...	2	1	1	4	3	8	18	49
Jullundur . . . . .	...	...	1	3	3	...	...	...	...	1	...	2	10
Ferozepore . . . . .	...	...	...	3	...	...	...	1	...	...	2	1	7
Meean Meer	4	3	5	2	7	...	5	...	...	2	4	4	36
Fort Lahore . . . . .	...	...	...	3	1	...	...	...	...	...	1	...	5
Amritsar . . . . .	...	...	...	...	1	...	...	...	2	...	...	1	4
Sialkot . . . . .	...	...	1	1	6	...	...	2	...	...	1	5	16
Rawalpindi	1	1	...	7	9	4	1	2	5	2	...	4	36
Campbellpur . . . . .	...	...	...	1	1	...	...	...	1	...	...	1	4
GROUP VI.—UPPER SUB-HIMALAYAN	23	15	20	32	36	16	16	12	20	11	24	60	285
Nowshera . . . . .	...	...	...	4	3	8	...	2	...	3	...	...	20
Peshawar	5	3	4	5	3	16	14	2	...	4	5	11	72
Mooltan . . . . .	...	...	2	...	3	...	...	...	...	1	1	1	8
Hyderabad . . . . .	...	...	5	...	...	...	...	...	...	...	...	1	6
Kurrachee . . . . .	...	1	2	1	1	...	...	2	2	...	...	...	9
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WEST RAJPUTANA . . .	5	4	13	10	10	24	14	6	2	8	6	13	115
Nowgong . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1
Jhansi	1	4	1	3	2	...	...	2	5	1	1	10	28
Agra	1	3	3	2	2	...	1	7	20	5	4	2	50
Muttra . . . . .	...	...	...	3	1	...	...	1	1	...	...	...	6
Nasirabad	1	...	1	8	7	1	...	4	5	1	...	1	29
Neemuch	1	...	...	...	...	2	...	...	1	1	...	...	5
Indore . . . . .	...	...	...	1	...	...	...	3	...	...	...	...	4
Mhow	4	4	...	14	...	4	10	10	6	3	2	13	70
Ahmedabad . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1
Deesa . . . . .	...	...	...	...	...	...	...	1	...	...	...	1	2
GROUP VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA, AND GUJARAT .	8	11	6	32	10	7	11	28	38	11	7	27	196

TABLE IX.

SIMPLE CONTINUED FEVER by months, stations, groups and commands.

ADMISSIONS FROM SIMPLE CONTINUED FEVER IN EACH MONTH.												
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
...	...	18	6	4	5	3	2	3	...	1	2	44
...	10	10
...	...	18	6	4	5	3	2	3	...	1	12	54
...
1	1	1	8	20	66	20	3	2	2	2	1	127
6	5	3	3	16	14	9	9	42	87	58	16	268
...	1	1	...	...	...	...	...	...	2
7	6	4	11	37	81	29	12	44	89	60	17	397
...
...
3	1	2	...	...	1	1	1	...	...	4	2	15
...
3	1	2	...	...	1	1	1	...	...	4	2	15
...
...	...	3	8	12	42	32	21	26	23	8	3	178
...	1	2	2	...	5
1	2	9	14	28	65	44	21	27	20	4	5	240
...
...	1	4	2	...	1	2	...	...	10
...
...	5	3	10	8	24	9	...	4	4	...	3	70
...	...	1	6	3	12	3	...	...	7	...	...	32
1	7	16	38	52	147	90	42	59	58	14	11	535
...
...	1	...	...	...	...	...	...	...	...	...	...	1
2	...	3	2	1	1	8	3	2	2	3	1	28
...	...	1	4	2	6	...	...	...	...	2	1	16
...
...
1	2	1	1	9	11	1	1	2	1	6	...	1
...	1	...	36
...	...	1	2	1	1
...
...	...	1	2	1	4
...	4	...	20	60	62	25	5	5	...	181
...
...
...	...	3	3
1	3	...	3	8	25	8	48
...
4	6	9	16	21	63	77	66	30	8	17	2	319
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...	37	39	14	24	40	15	2	171
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* Stations where neither Enteric Fever nor Simple Continued Fever occurred are not shown in these tables. For the annual ratios see Table III.

STATIONS.	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.													ADMISSIONS FROM SIMPLE CONTINUED FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Ahmednagar . . . . .	...	2	3	1	1	...	2	1	...	...	...	3	13	2	...	4	1	...	1	1	...	1	3	3	1	17
Poona	1	...	4	1	...	1	4	14	6	3	...	1	35	...	...	...	...	...	1	1	...	3	1	1	...	9
Kirkee . . . . .	...	...	4	5	10	4	3	7	3	3	1	...	40	1	...	6	5	...	...	...	2	...	...	...	...	14
Satara . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	2
Kamptee . . . . .	...	...	...	1	1	1	1	3	1	...	...	3	11	...	...	...	...	...	2	4	1	...	...	1	...	...
Sitabaldi . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	4	1	1	...	...	1	1	10
Belgam	1	...	1	1	...	...	...	1	1	3	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Secunderabad	3	1	9	1	5	2	29	16	9	5	10	6	96	1	1	3	...	6	7	1	...	...	4	13	5	41
Jubbulpore . . . . .	...	...	2	12	7	2	1	1	1	...	...	2	28	...	...	...	...	...	...	...	...	...	...	...	...	...
Saugor . . . . .	...	...	...	...	...	...	...	...	...	...	1	1	2	...	1	...	...	...	1	...	...	...	...	...	...	2
GROUP IX.—DECCAN	5	3	24	22	24	10	40	43	22	14	12	16	235	4	2	14	6	8	13	5	4	4	8	19	8	95
Colaba	1	...	...	...	...	...	...	...	...	1	...	...	2	5	9	8	11	24	11	9	6	10	5	7	3	108
Cannanore	2	...	9	2	...	...	...	...	...	...	...	...	13	...	1	6	...	...	...	1	...	...	...	...	...	8
Calicut . . . . .	...	...	...	...	...	2	...	...	1	...	1	1	5	...	...	5	...	...	1	...	...	...	...	...	...	6
Mallapuram . . . . .	...	...	...	...	1	2	...	1	3	...	...	...	7	...	...	2	1	...	...	...	1	...	...	...	...	4
GROUP X.—WESTERN COAST	3	...	9	2	1	2	2	1	4	1	1	1	27	5	10	21	12	24	12	10	7	10	5	7	3	126
Madras	1	1	...	...	...	...	...	...	...	...	...	...	2	...	...	6	2	...	...	...	...	...	...	...	...	...
St. Thomas' Mount . . . . .	...	...	1	...	1	...	...	...	...	...	1	...	3	5	...	...	2	8	4	8	...	...	...	4	4	41
Pallavaram . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	2	...	1	1	...	...	...	...	...	...	...	1	...	3
Bangalore . . . . .	...	2	9	8	2	6	7	3	...	1	1	8	47	3	6	16	9	8	2	4	2	6	11	10	2	79
Bellary . . . . .	...	...	...	...	...	...	1	1	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XI.—SOUTHERN INDIA	1	3	10	8	3	6	8	4	1	1	2	10	57	8	7	23	11	16	6	12	2	6	11	14	7	123
Ranikhet	1	2	22	7	15	6	4	7	8	2	1	...	75	...	...	1	11	13	7	8	3	4	1	...	...	48
Chaubuttia . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	1	2	1	1	...	...	...	...	...	...	5
Chakrata . . . . .	...	...	1	1	2	...	1	3	...	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Dagshai . . . . .	...	...	...	3	1	8	14	9	5	1	...	...	41	...	...	2	6	4	6	6	2	...	...	...	...	26
Solon . . . . .	...	...	...	1	...	...	...	1	1	...	...	...	3	...	...	...	1	...	...	...	...	...	...	...	...	1
Subathu . . . . .	...	...	5	13	9	12	20	24	24	2	...	...	109	...	...	...	...	...	...	...	...	5	...	...	...	5
Jutogh . . . . .	...	...	1	1	4	...	1	2	1	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Khyragully . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Kuldunnah . . . . .	...	...	...	...	1	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Camp Gharial . . . . .	...	...	...	...	3	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	1	...	...	...	1
„ Thobba . . . . .	...	...	...	1	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
„ Lower Topa . . . . .	...	...	...	1	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Cherat . . . . .	...	...	...	...	7	3	3	2	2	...	...	...	17	...	...	...	...	...	...	...	...	...	...	...	...	...
Quetta . . . . .	...	...	...	1	3	32	21	33	19	24	6	1	140	...	...	1	4	2	3	...	3	...	1	5	...	19
GROUP XIIa.—HILL STATIONS	1	2	29	29	49	61	64	81	61	29	7	1	414	...	...	5	24	20	17	14	8	10	2	5	...	105
Naini Tal . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Pachmarhi . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	4	2	...	...	...	...	...	...	...	6
Kasauli . . . . .	...	...	...	1	...	1	1	...	3	...	...	...	6	...	...	1	3	...	...	1	3	...	...	...	...	8
Dalhousie . . . . .	...	...	...	3	4	4	...	1	1	...	3	...	16	...	...	...	1	...	...	...	...	1	...	...	...	2
Murree . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Mount Abu . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2
Purandhur . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Wellington . . . . .	...	1	2	3	1	1	1	...	...	2	1	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XIIb.—HILL CON-VALESCENT DEPÔTS AND SANITARIA . . . . .	...	1	3	9	5	6	2	1	4	2	4	...	37	...	...	1	7	5	...	...	2	3	1	...	...	19
Troops marching in Bengal	2	7	4	...	...	...	...	...	...	...	2	...	15	...	...	5	1	...	...	...	...	...	...	...	...	6
Troops marching in the Punjab	1	...	1	1	...	...	...	...	1	...	3	2	9	1	...	...	8	1	...	...	...	...	1	...	...	10
Troops marching in Madras . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Troops marching in Bombay . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Deolali Depôt	1	4	5	2	1	...	1	...	3	1	1	7	26	...	...	...	2	1	1	1	...	2	...	...	...	7
Poonamallee „ . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	3	2	...	1	...	...	8
Aden . . . . .	...	...	...	...	...	...	...	1	2	...	1	...	4	1	...	...	...	1	...	...	...	...	1	2	...	5
India	65	75	202	214	160	152	175	214	179	90	92	177	1,795	40	42	124	147	201	402	293	185	202	235	165	75	2,111
BENGAL	32	49	115	104	56	35	28	61	63	20	38	78	679	9	12	34	64	77	179	113	59	75	71	27	20	740
PUNJAB	15	8	24	57	69	58	60	49	51	19	28	50	488	2	5	8	18	25	99	114	81	60	47	28	2	489
MADRAS	9	6	37	17	11	14	45	25	16	14	15	18	227	17	15	61	37	65	101	49	19	53	105	88	41	651
BOMBAY	9	12	26	36	24	45	42	79	49	37	11	31	401	12	10	21	28	34	23	17	26	14	12	22	12	231

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TABLE X.

INTERMITTENT FEVER by months, stations, groups and commands.

TABLE XI.

REMITTENT FEVER by months, stations, groups and commands.

STATIONS.*	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.													ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Port Blair . . .	3	4	...	2	...	1	...	...	...	1	1	1	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Rangoon . . .	8	1	8	8	8	27	18	9	5	6	12	15	125	...	...	...	...	...	2	1	1	...	...	...	...	4
GROUP I.—BURMA COAST AND BAY ISLANDS . . .	11	5	8	10	8	28	18	9	5	7	13	16	138	...	...	...	...	...	2	1	1	...	...	...	...	4
Thayetmyo . . .	...	3	3	11	11	22	7	3	4	3	6	...	73	...	...	...	...	1	...	1	...	...	...	...	...	3
Meiktila . . .	8	3	11	9	8	7	9	3	5	2	6	5	76	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Dufferin . . .	3	1	...	...	1	4	...	1	5	...	2	1	18	2	1	...	...	...	...	...	4	5	...	...	...	12
Shwebo . . .	6	5	4	1	2	8	7	9	3	3	2	2	52	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhamo . . .	7	4	4	4	1	11	29	31	58	27	11	15	202	...	...	...	...	...	...	...	...	1	...	...	...	1
GROUP II.—BURMA INLAND . . .	24	16	22	25	23	52	52	47	75	35	27	23	421	2	1	...	...	1	...	1	1	4	6	...	...	16
Fort William . . .	14	14	18	13	19	4	7	18	8	7	1	1	124	...	5	6	1	13	13	31	19	2	6	1	...	97
„ Fulta . . .	...	1	...	...	...	...	...	...	...	...	5	4	10	...	...	...	...	...	...	...	...	...	...	...	...	...
„ Chingrikhal . . .	...	...	...	...	...	...	...	...	...	...	4	1	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Dum Dum . . .	15	5	12	8	3	9	5	14	31	17	5	5	129	1	...	7	2	...	2	5	3	3	2	2	...	27
Barrackpore . . .	14	6	13	19	22	29	35	35	16	13	9	25	236	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IV.—BENGAL AND ORISSA . . .	43	26	43	40	44	42	47	67	55	37	24	36	504	1	5	13	3	13	15	36	22	5	8	3	...	124
Dinapore . . .	...	3	6	11	8	3	22	9	8	17	19	8	114	...	...	...	...	...	5	...	2	1	...	2	...	10
Benares . . .	2	4	7	1	1	...	...	2	11	6	3	3	40	...	...	...	...	...	1	...	...	2	1	...	1	5
Fyzabad . . .	16	7	13	8	5	13	34	19	26	26	15	9	191	...	...	...	...	...	...	...	...	...	...	...	...	...
Lucknow . . .	31	12	19	25	22	53	156	67	95	31	28	17	556	...	1	6	7	7	9	4	9	3	5	4	11	66
Sitapur . . .	4	3	4	1	9	5	12	9	4	7	4	4	66	...	1	...	3	...	...	...	1	...	1	...	1	7
Fatehgarh . . .	1	2	3	...	1	7	9	4	2	1	1	...	31	...	...	...	...	...	...	...	...	...	...	...	...	...
Cawnpore . . .	4	13	19	10	13	18	21	11	20	18	11	7	165	...	...	1	3	1	1	...	1	...	...	...	...	7
Allahabad . . .	4	11	12	3	3	5	7	17	45	21	19	10	157	...	1	...	...	...	...	...	...	...	...	...	...	1
Fort Allahabad . . .	2	5	1	1	1	...	3	15	13	5	8	...	54	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP V.—GANGE- TIC PLAIN AND CHUTIA NAGPUR . . .	64	60	84	60	63	104	264	153	224	132	108	58	1,374	...	3	7	13	8	15	5	13	6	7	6	13	96
Shahjahanpur . . .	1	2	2	2	3	5	8	3	...	5	1	...	32	...	...	1	...	...	2	...	...	...	...	...	...	3
Bareilly . . .	23	6	8	6	8	11	39	15	18	9	15	11	169	...	...	...	...	...	...	...	...	...	...	...	...	2
Meerut . . .	45	34	46	27	30	28	106	50	96	40	56	70	628	1	...	1	...	...	1	2	1	5	1	...	12	24
Delhi . . .	5	4	9	29	26	18	23	25	41	24	17	17	238	...	...	...	...	...	...	...	...	1	...	...	...	1
Roorkee . . .	5	2	3	3	3	12	9	3	17	4	8	1	70	...	...	...	...	...	...	1	...	3	...	...	...	4
Umballa . . .	26	21	42	19	9	22	52	17	73	107	74	19	481	...	...	...	1	...	1	1	...	3	2	...	2	10
Julundur . . .	6	8	11	12	15	23	26	7	9	6	...	...	129	...	...	...	...	...	...	...	...	...	1	...	...	1
Ferozepore . . .	13	18	33	17	18	79	62	22	20	10	11	10	313	...	...	...	...	...	5	2	...	...	...	...	...	7
Meeran Meer . . .	14	5	9	10	7	24	20	4	23	72	45	34	267	1	...	...	...	...	4	2	2	6	...	1	1	18
Fort Lahore . . .	2	...	...	1	1	10	3	2	8	18	5	4	54	...	...	2	1	...	4	2	3	...	1	...	2	15
Amritsar . . .	1	3	4	3	1	10	7	2	13	5	4	4	57	1	...	...	1	...	...	...	1	4	1	2	...	10
Sialkot . . .	22	9	14	8	26	28	66	6	13	7	21	12	232	...	...	...	2	6	1	1	1	1	2	5	5	24
Rawalpindi . . .	42	37	74	45	7	30	59	81	88	150	131	69	813	...	...	1	1	3	8	13	11	27	47	8	1	120
Campbellpur . . .	1	1	...	3	4	2	1	1	4	11	3	4	35	...	...	...	...	...	...	...	...	...	...	...	...	...
Attock . . .	2	2	1	9	8	7	7	2	2	5	5	11	61	...	...	...	...	...	...	...	...	1	...	...	...	1
GROUP VI.—UPPER SUB-HIMALAYAN . . .	208	151	256	194	166	309	488	240	425	473	402	266	3,579	3	...	5	7	9	26	24	19	48	57	17	25	240
Nowshera . . .	57	28	23	34	30	17	37	34	49	48	35	4	396	2	3	...	1	7	40	6	7	2	6	1	1	76
Peshawar . . .	50	36	47	38	35	80	79	59	162	119	77	40	822	...	1	2	2	3	9	6	5	1	12	4	1	46
Mooltan . . .	14	5	26	22	24	52	7	7	16	20	11	7	211	...	...	1	1	4	4	...	...	1	...	...	...	11
Hyderabad . . .	...	3	20	7	13	21	7	12	12	8	17	8	128	...	...	...	...	...	...	...	...	1	...	...	...	1
Kurrachee . . .	98	40	49	22	19	39	33	40	58	39	245	293	975	1	...	...	1	1	1	...	...	2	1	...	...	7
GROUP VII.—N.-W. FRONTIER, INDUS- VALLEY, AND N.- W. RAJPUTANA . . .	219	112	165	123	121	209	163	152	297	234	385	352	2,532	3	4	3	5	15	54	12	12	7	19	5	2	141
Nowgong . . .	...	5	...	7	4	3	...	14	60	21	13	6	133	...	...	1	3	1	...	...	...	...	...	...	...	5
Jhansi . . .	15	6	6	9	24	46	45	25	120	39	29	29	393	...	...	...	...	...	...	...	...	...	...	...	...	...
Agra . . .	7	9	9	11	8	50	26	17	50	4	3	2	196	...	...	...	...	...	...	...	...	...	...	...	...	...
Muttra . . .	3	14	15	6	8	30	30	9	13	3	5	7	143	...	...	1	3	...	...	...	...	...	...	...	...	4
Nasirabad . . .	14	14	26	28	11	16	11	39	33	14	9	15	230	...	...	...	...	...	...	...	1	...	1	...	1	3
Neemuch . . .	1	4	7	6	1	7	5	27	95	82	73	27	335	...	...	...	...	...	...	...	3	3	...	2	1	9
Indore . . .	1	1	2	1	3	...	1	4	4	2	1	3	23	...	...	...	...	...	...	2	...	...	1	...	...	3
Mhow . . .	47	33	25	24	23	31	22	91	94	63	42	29	524	1	2	...	3	...	...	6	10	3	...	2	2	29
Ahmedabad . . .	11	6	1	4	4	28	25	44	48	25	16	19	231	...	...	...	...	...	1	...	...	1	...	1	...	3
Deesa . . .	5	...	5	4	7	19	35	71	41	15	9	3	214	...	...	...	...	...	...	...	1	2	...	2	2	7
GROUP VIII.—S. E. RAJPUTANA, CEN- TRAL INDIA, AND GUJARAT . . .	104	92	96	100	93	230	200	341	558	268	200	140	2,422	1	2	2	9	1	1	8	15	8	3	6	7	63

* For the annual ratios see Table III.

STATIONS.	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.													ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Ahmednagar	8	21	12	11	8	11	14	18	11	12	7	9	142	...	...	...	...	...	...	...	...	...	...	...	...	...
Poona	29	22	30	46	49	153	90	70	64	59	55	50	722	...	...	1	...	...	...	...	1	2	...	1	...	5
Kirkee	10	11	20	14	8	30	43	42	40	20	27	12	277	...	...	4	5	6	8	1	...	...	...	...	1	25
Satara	13	2	3	2	4	24	10	13	5	10	7	8	101	...	...	...	...	...	...	...	...	...	1	...	...	1
Kamptee	4	4	2	7	5	9	10	38	40	24	15	24	182	...	...	...	...	2	2	4	1	2	1	1	4	17
Sitabaldi	1	1	3	1	...	2	5	7	7	7	3	1	38	...	...	...	...	...	...	...	...	...	...	...	...	...
Belgam	3	11	20	9	9	17	1	7	3	5	3	6	94	...	...	...	2	1	...	1	...	...	...	...	...	4
Secunderabad	32	47	29	13	17	29	27	23	35	31	14	33	330	...	...	...	...	...	1	1	...	...	2	2	...	6
Jubbulpore	14	11	17	13	19	25	31	73	193	110	44	50	600	...	...	...	...	3	2	4	2	2	1	...	...	14
Saugor	3	5	3	4	...	5	10	19	74	36	28	20	207	...	...	...	...	...	1	...	2	...	...	1	...	4
GROUP IX.—DECAN	117	135	139	120	119	310	241	310	472	314	203	213	2,693	...	...	5	7	12	14	11	6	6	4	6	5	76
Colaba . . . . .	...	4	4	12	13	26	12	7	8	10	5	6	107	2	...	...	...	6	...	...	...	1	1	...	2	12
Cannanore	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	3	...	...	...	...	...	3
Calicut . . . . .	...	2	...	...	1	...	...	...	3	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Mallapuram . . . . .	...	...	...	...	2	...	...	1	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP X.—WESTERN COAST	1	6	4	12	16	26	12	8	11	10	5	7	118	2	...	...	...	6	...	...	3	1	1	...	2	15
Madras	1	2	6	3	13	9	5	5	5	4	5	13	71	...	...	...	...	...	...	...	...	...	1	...	...	1
St. Thomas' Mount . . . . .	...	...	...	...	...	...	...	4	9	3	2	...	18	...	...	...	...	...	...	...	1	...	...	...	...	1
Pallavaram . . . . .	...	...	...	...	...	...	...	2	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Bangalore	4	2	6	4	5	17	6	7	2	2	5	4	64	...	...	1	3	8	6	5	1	1	3	6	3	37
Bellary	6	13	15	8	11	9	6	5	10	20	18	9	130	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XI.—SOUTHERN INDIA	11	17	27	15	29	35	17	23	26	29	30	27	286	...	...	1	3	8	6	5	1	2	3	7	3	39
Ranikhet . . . . .	...	5	19	18	21	24	13	17	11	2	...	...	130	...	...	...	...	...	...	...	...	2	2	...	...	4
Chaubuttia . . . . .	...	...	1	3	3	2	...	...	...	...	...	...	9	...	...	...	1	...	...	...	...	...	...	...	...	1
Chakrata	1	...	...	34	22	21	8	6	5	6	...	...	103	...	...	...	4	1	3	3	...	...	...	...	...	11
Dagshai	3	...	1	19	15	24	23	28	15	14	3	2	147	...	...	...	...	...	...	...	...	...	...	...	...	...
Solon . . . . .	...	...	...	4	6	7	6	2	12	1	...	...	38	...	...	...	...	...	...	...	...	...	...	...	...	...
Subathu . . . . .	...	...	3	13	9	12	15	20	22	1	1	...	96	...	...	...	1	...	...	...	1	1	1	...	...	4
Jutogh . . . . .	...	...	4	13	15	5	8	3	4	1	...	...	53	...	...	...	...	2	1	1	...	1	...	...	...	5
Khayragully . . . . .	...	...	...	1	4	4	2	1	2	...	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Baragully . . . . .	...	...	...	1	1	1	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Kuldunnah . . . . .	...	...	...	6	15	14	3	10	7	3	...	...	58	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalabagh . . . . .	...	...	...	1	3	4	4	3	1	1	...	...	17	...	...	...	...	...	...	...	...	...	...	...	...	...
Camp Gharial . . . . .	...	...	...	2	32	35	19	16	19	6	...	...	129	...	...	...	...	...	1	...	...	...	...	...	...	1
„ Thobba . . . . .	...	...	...	1	24	29	11	8	10	2	...	...	85	...	...	...	...	...	...	...	...	...	...	...	...	...
„ Lower Topa . . . . .	...	...	...	2	5	...	3	4	2	2	...	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...
Ghora Dhaka . . . . .	...	...	...	2	7	5	1	4	1	...	...	...	20	...	...	...	...	...	...	...	...	...	...	...	...	...
Cherat . . . . .	...	...	...	2	18	9	3	5	6	...	...	...	43	...	...	...	...	2	1	4	4	2	...	...	...	13
Quetta	26	11	18	37	34	61	55	61	79	34	19	17	452	...	...	...	...	...	8	6	1	3	1	2	2	23
Bernardmyo . . . . .	...	...	1	1	3	3	1	5	4	1	2	2	23	1	...	...	...	...	...	...	1	...	...	...	...	2
GROUP XIIa.—HILL STATIONS	30	16	47	160	237	260	175	193	200	74	25	21	1,438	1	...	...	6	5	14	14	7	9	4	2	2	64
Darjeeling . . . . .	...	2	10	6	4	13	10	8	3	2	1	...	59	...	...	...	...	1	...	1	...	...	...	1	...	3
Naini Tal . . . . .	...	1	1	3	4	5	5	...	1	...	...	...	20	...	...	...	1	...	1	...	1	...	...	...	...	3
Landour . . . . .	...	...	...	7	13	11	5	...	...	...	...	...	37	...	...	...	...	...	...	...	...	...	...	...	...	...
Pachmarhi . . . . .	...	...	...	3	9	7	6	11	12	13	...	...	61	...	...	...	3	2	2	1	7	2	1	...	...	18
Kasauli . . . . .	...	...	5	8	7	14	9	11	8	7	2	1	72	...	...	...	...	...	...	...	...	...	...	...	...	...
Dalhousie	1	1	...	20	33	29	18	16	21	6	1	...	146	...	...	...	...	2	...	...	...	...	...	...	...	2
Murree . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Taragarh . . . . .	...	...	1	1	1	1	...	...	...	1	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Mount Abu . . . . .	...	...	...	5	8	7	8	8	3	1	4	1	45	...	...	...	...	...	...	...	...	...	...	...	...	...
Purandhur	3	3	2	5	7	...	1	2	...	3	4	4	34	...	...	...	...	...	...	...	...	...	...	...	...	...
Khandalla	1	2	1	1	1	...	...	...	1	1	4	2	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Wellington	1	1	14	22	20	29	16	9	14	9	11	3	149	...	...	1	...	...	28	15	...	4	3	...	2	53
GROUP XIIb.—HILL CONVALESCENT DEPÔTS AND SANITARIA	6	10	34	81	107	116	78	66	62	44	27	11	642	...	...	1	4	4	32	16	9	6	4	...	3	79
Troops marching in Bengal	16	18	10	5	...	...	...	...	...	...	1	2	52	2	1	2	...	...	...	...	...	...	...	...	...	5
Troops marching in the Punjab	1	3	7	1	...	...	...	...	...	9	12	9	42	...	...	...	...	...	...	...	...	...	2	...	...	2
Troops marching in Madras . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Troops marching in Bombay	3	12	...	...	...	...	...	...	...	...	1	2	18	...	...	...	...	...	...	...	...	...	...	1	...	1
Deolali Depôt	9	17	20	8	8	58	24	16	23	30	43	63	319	...	...	...	...	2	1	2	2	...	...	2	...	9
Poonamallee Depôt	1	...	...	1	...	...	1	...	1	...	1	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Aden	13	26	45	33	23	29	17	9	9	16	26	18	264	1	...	...	...	...	...	...	...	...	1	1	...	3
INDIA	881	723	1,007	989	1,057	1,808	1,797	1,634	2,443	1,712	1,533	1,264	16,848	16	16	39	57	82	181	134	111	104	116	55	66	977
BENGAL	245	210	286	296	316	462	685	516	993	487	353	309	5,158	4	9	26	31	28	43	52	49	23	23	10	28	326
PUNJAB	255	177	304	317	379	576	551	375	610	632	447	230	4,853	4	4	6	12	29	79	38	35	50	72	24	13	366
MADRAS	84	99	121	97	112	193	133	124	166	117	101	111	1,458	3	1	2	5	10	37	24	7	10	14	9	5	127
BOMBAY	297	237	296	279	250	577	428	619	674	476	632	614	5,379	5	2	5	9	15	22	20	20	21	7	12	20	158

EUROPEAN TROOPS, 1896.

TABLE XII.

PNEUMONIA by months, stations, groups and commands.

TABLE XIII.

DYSENTERY by months, stations, groups and commands.

STATIONS.*	ADMISSIONS FROM PNEUMONIA IN EACH MONTH.													ADMISSIONS FROM DYSENTERY IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Port Blair . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rangoon . . . . .	...	...	2	1	...	1	...	...	...	...	...	...	4	3	4	4	5	7	19	12	4	4	1	1	...	2
GROUP I.—BURMA COAST AND BAY ISLANDS . . .	...	...	2	1	...	1	...	...	...	...	...	...	4	3	4	4	5	7	19	12	4	4	3	3	8	76
Thayetmyo . . . . .	...	...	2	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	2	1	...	1	...	...	5
Meiktila . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Fort Dufferin . . . . .	...	...	1	...	2	...	...	...	...	1	...	...	4	3	...	1	...	1	...	5	3	4	2	6	7	32
Shwebo . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	1	4	2	1	5	...	5	...	1	2	...	...	21
Bhamo . . . . .	...	1	...	...	...	...	...	...	...	...	1	...	2	...	...	1	1	...	1	2	...	1	2	1	...	11
GROUP II.—BURMA INLAND	...	1	4	...	2	...	...	...	...	1	1	...	9	4	5	5	2	6	1	12	5	7	6	9	8	70
Fort William . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	6	4	6	7	6	8	11	6	6	4	7	5	76
„ Fulta . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
„ Chingrikhal . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Dum Dum . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	3	6	8	1	2	5	2	30
Barrackpore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	1	3	14	8	12	3	5	6	55
GROUP IV.—BENGAL AND ORISSA . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	8	6	8	7	8	14	31	22	19	9	17	14	163
Dinapore . . . . .	...	1	...	...	1	...	...	...	...	...	...	...	2	4	...	2	4	3	2	5	3	1	...	...	...	24
Benares . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	2	2	1	...	2	2	3	1	5	4	1	1	24
Fyzabad . . . . .	...	...	...	...	...	5	...	1	...	...	...	...	6	4	6	12	6	4	2	3	5	3	6	5	3	59
Lucknow	2	...	3	2	1	...	2	...	...	1	...	2	13	7	4	5	9	8	3	5	1	6	3	7	5	63
Sitapur . . . . .	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	...	...	...	1	...	1	...	1	4
Fatehgarh	1	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	1	...	...	3
Cawnpore . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	2	1	1	1	5	5	8	3	2	3	4	9	44
Allahabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	5	12	5	5	2	4	2	4	2	...	1	12	54
Fort Allahabad . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	2	2	2	2	...	1	...	1	...	10
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR . . .	3	4	3	2	2	5	3	1	1	1	...	2	27	25	25	27	27	27	20	28	18	20	17	20	31	285
Shahjahanpur . . . . .	...	...	1	...	...	...	...	...	...	...	...	1	2	...	...	...	2	1	...	1	...	...	...	1	...	5
Bareilly	14	5	...	...	...	1	...	1	...	...	2	...	23	8	6	6	1	6	2	1	1	2	1	4	4	42
Meerut	8	...	1	...	...	1	...	...	...	1	2	4	17	4	...	4	5	2	1	3	2	14	1	4	8	48
Delhi	1	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	1	...	...	1	...	1	...	...	3
Roorkee	1	1	...	...	...	...	1	...	...	...	...	...	3	2	...	2	...	1	1	...	...	1	2	1	...	10
Umballa	9	1	...	2	...	...	...	...	...	2	1	2	17	2	5	3	3	...	1	1	...	5	3	1	6	30
Jullundur	2	2	...	...	...	...	...	...	...	...	...	...	4	...	2	2	3	1	2	1	2	3	...	...	...	16
Ferozepore	1	2	3	1	...	...	...	...	...	1	...	1	9	...	...	...	...	...	...	1	1	2	...	...	...	4
Meean Meer	6	2	2	...	...	...	...	...	1	...	...	1	12	2	1	...	1	1	1	1	1	...	3	1	1	13
Fort Lahore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...	3
Amritsar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Sialkot	2	2	1	...	...	...	...	...	...	2	2	1	10	...	1	...	...	3	3	...	1	...	5	2	6	21
Rawalpindi	10	1	3	3	...	1	1	1	...	...	2	2	24	4	4	2	...	1	1	...	...	1	3	6	6	28
Campbellpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Attock . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	4
GROUP VI.—UPPER SUB-HIMALAYAN	54	16	11	6	...	3	2	2	1	7	9	12	123	22	19	19	15	17	13	9	11	29	20	21	34	229
Nowshera . . . . .	...	...	...	...	1	...	...	...	...	...	...	3	4	1	1	...	...	1	...	1	1	2	...	...	...	8
Peshawar	17	2	6	...	...	...	...	2	...	1	1	1	30	1	...	3	1	3	1	2	1	3	2	6	2	25
Mooltan . . . . .	...	...	1	...	...	...	...	...	...	1	...	1	3	1	...	...	3	2	1	...	1	2	3	1	...	14
Hyderabad . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	1	...	2	...	4
Kurrachee . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	4	3	1	...	1	...	5	3	5	...	3	...	25
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA . . .	17	2	7	...	2	1	...	2	...	2	1	5	39	7	4	4	5	7	2	8	6	11	8	10	4	76
Jhansi . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	2	...	...	3	1	2	3	3	9	5	2	3	33
Agra	3	...	1	...	...	1	...	...	2	...	1	...	8	2	1	3	3	...	...	1	1	3	5	...	1	20
Muttra	1	...	...	...	...	...	...	...	...	...	...	1	2	...	...	1	2	3	2	...	...	3	1	...	...	12
Nasirabad	2	1	1	1	...	...	...	...	...	...	1	...	6	1	...	2	...	1	2	2	2	3	1	1	3	16
Neemuch	1	...	...	...	...	...	...	1	...	...	...	1	3	...	...	1	...	1	2	...	...	4	2	...	...	10
Indore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	2	...	...	...	...	...	5
Mhow	5	1	...	...	1	...	...	...	...	1	...	1	9	2	2	2	2	...	1	...	1	1	...	3	...	14
Ahmedabad . . . . .	...	...	1	...	...	...	...	...	1	...	1	1	4	1	...	...	...	...	...	...	...	1	...	...	...	2
Deesa . . . . .	...	...	...	...	...	1	...	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VIII.—S. E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT	12	3	3	1	1	2	...	1	3	2	3	4	35	9	4	9	10	6	8	8	7	23	15	6	7	112

* Stations where neither Pneumonia nor Dysentery occurred are not shown in these tables. For the annual ratios see Table III.

STATIONS.	ADMISSIONS FROM PNEUMONIA IN EACH MONTH.													ADMISSIONS FROM DYSENTERY IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Ahmednagar	1	1	...	...	...	...	...	1	...	...	3	1	3	1	1	1	1	2	...	...	...	1	1	12
Poona	3	1	2	1	...	...	...	...	...	...	...	1	8	4	1	4	3	1	2	5	15	7	4	...	2	48
Kirkee	1	...	...	...	2	3	...	2	3	1	...	13
Satara	1	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	2
Kamptee	1	1	1	...	3	3	1	...	2	1	1	...	4	4	20
Sitabaldi	1	1	1	...	1	...	...	4
Belgam	2	...	...	...	1	...	...	3	...	1	2	3	4	2	1	...	1	3	4	3	24
Secunderabad	1	2	2	...	1	...	1	1	...	2	...	10	10	14	13	7	8	8	19	7	9	10	17	15	137
Jubbulpore	2	1	1	...	...	1	...	1	1	...	...	...	7	...	2	7	14	10	5	4	7	2	4	2	3	60
Saugor	1	...	...	...	...	...	...	1	...	...	...	1	...	1	2	1	...	...	...	1	6
GROUP IX.—DECCAN	5	3	6	5	...	5	...	2	2	2	2	2	34	16	23	30	32	26	21	39	32	23	25	30	29	326
Colaba	1	...	...	...	...	...	...	...	...	1	2	1	...	...	...	...	3	2	2	1	1	1	...	11
Calicut	1	...	...	...	1	...	...	...	...	...	...	2
Mallapuram	1	...	...	...	...	...	1
GROUP X.—WESTERN COAST	1	...	...	...	...	...	...	...	...	1	2	1	1	...	...	...	...	4	3	2	1	1	1	14
Madras	1	...	...	...	...	...	...	...	...	...	...	1	4	2	2	5	2	1	3	...	1	1	3	3	27
St. Thomas' Mount	2	2	...	1	...	...	...	...	...	...	...	1	5	11	
Pallavaram	1	...	...	...	...	...	...	...	...	...	...	1	2	1	...	...	...	...	...	2	1	...	...	...	6
Bangalore	2	...	...	...	1	...	1	...	1	4	2	11	4	4	9	7	9	11	7	4	...	3	2	5	65
Bellary	1	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	1	1	2	1	...	...	5	12
GROUP XI.—SOUTHERN INDIA	5	...	...	...	1	...	1	...	1	4	4	16	10	8	15	13	11	14	11	6	4	5	6	18	121
Ranikhet	2	...	1	1	1	...	1	...	...	...	6	...	...	2	8	7	3	4	6	6	1	1	...	38
Chaubuttia	1	...	1	...	1	...	...	...	...	...	4
Chakrata	2	...	...	...	...	...	...	...	...	2	...	...	...	1	3	5	2	2	4	2	...	...	19
Dagshai	1	...	1	...	1	...	...	...	...	1	1	...	5	...	...	...	1	3	3	...	2	2	...	...	...	9
Solon	2	1	...	1	...	...	4
Subathu	1	...	...	...	...	...	...	...	...	...	1	...	...	3	...	...	3	2	1	4	...	...	...	13
Jutogh	2	1	3	...	4	1	...	...	...	11
Kuldunnah	1	2	1	...	1	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalabagh	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1
Camp Gharial	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	1	2	...	...	...	5
„ Thobba	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1
„ Lower Topa	1	1	1	1	1	1	...	...	...	6
Ghora Dhaka	1	1	...	1	...	...	...	...	3
Cherat	1	...	1	2	1	...	...	5
Quetta	4	2	3	1	...	...	...	1	2	...	...	1	14	2	...	3	1	4	7	1	6	4	4	...	2	34
Ramandrug	1	...	...	1	...	...	...	...	...	...	2
GROUP XIIa.—HILL STATIONS	5	2	7	4	7	2	1	2	3	1	1	1	36	2	...	10	14	22	29	14	26	26	9	1	2	155
Darjeeling	3	...	...	...	...	...	...	1	...	...	4	...	...	1	2	1	2	2	2	...	...	...	...	10
Naini Tal	1	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...	...	1	...	...	...	2
Landour	1	1	...	...	...	...	...	...	...	4
Pachmarhi	1	3	...	2	1	4	2	2	...	...	15
Kasauli	1	...	...	...	...	...	...	...	...	1	...	...	5	2	4	2	1	3	2	...	...	...	19
Dalhousie	1	...	1	...	...	...	...	...	2	...	...	...	1	1	2	1	2	1	...	...	...	8
Mount Abu	1	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...	...	...	2
Purandhur	2	...	...	...	...	...	...	...	...	...	2
Khandalla	1	...	...	1
Wellington	1	...	...	...	1	2	...	...	...	3	5	3	1	2	2	1	1	...	18
GROUP XIIb.—HILL CONVALESCENT DEPÔTS AND SANITARIA	3	2	2	...	1	1	...	1	...	1	11	...	...	9	12	14	13	6	13	9	4	1	...	81
Troops marching in Bengal	5	2	...	...	...	...	...	...	...	...	...	...	7	2	4	4	...	...	...	...	...	...	3	...	...	13
„ „ „ the Punjab	9	2	...	...	...	...	...	...	...	1	...	...	12	...	1	1	...	...	...	...	...	1	1	4	...	8
„ „ „ Madras	1	...	...	...	...	...	...	...	...	...	...	...	2
„ „ „ Bombay	3	3	...	...	...	...	...	...	...	...	...	...	6
Deolali Depôt	4	1	4	...	...	...	...	...	...	...	1	1	11	2	9	11	...	2	1	...	1	5	8	5	6	50
Poonamallee Depôt	1	...	...	...	1	3	2	1	3	1	4	3	2	4	...	4	2	29
Aden	1	1	2	4	...	...	1	...	...	1	4	2	7	4	25
INDIA	114	41	52	21	16	20	7	12	11	19	22	34	369	120	123	157	145	155	159	185	157	190	133	145	172	1,841
BENGAL	38	14	13	4	4	11	5	3																		

EUROPEAN TROOPS, 1896.

TABLE XIV.

STATISTICS OF REGIMENTS.

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	ADMIS- SIONS AND ADMIS- SION- RATES.		DEATHS AND DEATH-RATES.								Arrivals in India in 1896.	Stations occupied during the year.	Years of service in India.	
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.				Hepatic Abscess.
CAVALRY.																			
4th Dragoon Guards.	605 {	854 1411'6	16 26'45	6 9'92	49'54 81'88	...	20 33'1	...	6 9'92	...	1 1'65	2 3'31	1 1'65	1 1'65	...	...	64	Rawalpindi, 12 months, Detach- ment, Topa, 6 months.	2 3
5th " "	568 {	703 1237'7	7 12'32	15 26'41	50'96 89'72	...	19 33'5	...	2 3'52	...	2 3'52	1 1'76	...	...	...	1'76	67	Meerut, 12 months	3 2
4th Hussars	115 {	216 1878'3	2 17'39	...	11'84 102'96	...	5 43'5	...	1 8'70	...	...	...	...	...	...	...	454	Bangalore, 2 3/4 months; (arrived from England on the 8th October 1896).	0 3
5th Lancers	604 {	844 1397'4	8 13'25	8 13'25	52'29 86'57	2 3'3	8 13'2	2 3'31	4 6'62	...	...	1 1'66	...	...	...	1'66	64	Muttra, 12 months	8 0
11th Hussars	650 {	506 778'5	5 7'69	13 20'00	32'35 49'77	...	1 1'5	...	...	...	1 1'54	1 1'54	...	...	...	...	56	Sialkot, 12 months	4 1
16th Lancers	586 {	785 1339'6	11 18'77	29 49'49	56'62 96'62	...	18 30'7	...	4 6'83	...	...	1 1'71	...	...	...	...	90	Lucknow, 10 months; Umbal- la, 2/3 month; marching 1 1/3 months.	6 3
18th Hussars	625 {	747 1195'2	11 17'60	10 16'00	43'66 69'86	...	12 19'2	...	5 8'00	...	...	...	...	...	...	2 3'20	64	Umballa, 11 1/6 months; Luck- now, 1/3 month; marching 1/2 month.	7 0
19th " "	580 {	595 1025'9	6 10'34	19 32'76	45'37 78'22	...	14 24'1	...	4 6'90	...	...	...	...	...	...	...	178	Bangalore, 9 1/3 months; Secun- derabad, 2 2/3 months.	5 3
20th " "	598 {	759 1269'2	5 8'36	12 20'06	59'36 99'26	...	31 51'8	...	4 6'69	...	...	...	...	...	1 1'67	...	27	Mhow, 12 months	1 3
21st " "	471 {	612 1299'4	5 10'62	12 25'48	45'02 95'58	...	15 31'8	...	4 8'49	...	...	...	...	...	...	...	...	Secunderabad, 9 months; (left for Egypt on the 2nd October 1896).	8 9
TOTAL	5,402 {	6,621 1225'7	76 14'07	124 22'95	447'01 82'75	2 4	143 26'5	2 37	34 6'29	...	4 74	6 1'11	1 1'19	1 1'19	1 1'19	4 74			
ARTILLERY.																			
A Battery, Royal Horse Artil- lery.	143 {	177 1237'8	3 20'98	6 41'96	10'58 73'99	...	1 7'0	...	1 6'99	...	...	...	...	...	...	...	42	Umballa, 11 months; march- ing 1 month.	7 2
B " "	155 {	164 1058'1	1 6'45	1 6'45	8'85 57'10	...	1 6'5	...	...	...	...	...	...	1 6'45	...	...	...	Rawalpindi, 10 months; march- ing 2 months.	7 2
C " "	142 {	184 1295'8	2 14'08	6 42'25	13'18 92'82	...	8 56'3	...	2 14'08	...	...	...	...	...	...	...	35	Meerut, 11 months; marching 1 month.	7 2
F " "	161 {	169 1049'7	4 24'84	...	10'75 66'77	...	14 87'0	...	2 12'42	...	...	1 6'21	...	...	...	...	...	Sialkot, 12 months; Detach- ment, Topa, 5 months.	1 3
H " "	154 {	210 1363'6	...	6 38'96	13'80 89'61	...	3 19'5	...	...	...	...	...	...	...	...	...	34	Umballa, 11 months; march- ing 1 month.	7 2
I " "	148 {	175 1182'4	2 13'51	3 20'27	11'66 78'78	...	6 40'5	...	1 6'76	...	...	...	1 6'76	...	...	...	...	Mhow, 12 months	3 2 1/2
K " "	147 {	211 1435'4	2 13'61	5 34'01	11'41 77'62	...	3 20'4	...	1 6'80	...	...	...	1 6'80	...	...	...	39	Lucknow, 11 1/3 months; march- ing 2/3 month.	5 2
L " "	161 {	148 919'3	1 6'21	5 31'06	10'94 67'95	...	3 18'6	...	...	...	...	...	...	...	...	...	...	Kirkee, 12 months	4 2
M " "	172 {	162 941'9	6 34'88	7 40'70	14'16 82'33	...	8 46'5	...	4 23'26	...	...	...	...	...	...	1 5'81	...	Bangalore, 12 months.	10 0
N " "	160 {	172 1075'0	3 18'75	6 37'50	12'81 80'06	...	5 31'3	...	1 6'25	...	...	...	...	...	...	2 12'50	...	Meerut, 11 months; marching 1 month.	11 1 1/2
S " "	152 {	184 1210'5	1 6'58	4 26'32	12'95 85'20	...	1 6'6	...	1 6'58	...	...	...	...	...	...	...	15	Secunderabad, 12 months.	11 0

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	ADMISSIONS AND ADMISSION-RATES.		DEATHS AND DEATH-RATES.									Arrivals in India in 1896.	Stations occupied during the year.	Years of service in India.	
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.				
Field Battery, Royal Artillery.	133	244 1,834·6	9 67·67	1 7·52	15·01 112·86	...	17 127·8	...	9 67·67	...	...	...	...	...	...	...	...	155	Kirkee, 11 $\frac{5}{8}$ months; (arrived from England on the 6th January 1896)	Y. M. 1 0
" "	115	96 834·8	1 8·70	4 34·78	8·15 70·87	8·7	8·7	...	...	...	...	...	...	...	...	...	...	...	Dinapore, 9 months; (left for England on the 29th September 1896).	15 8 $\frac{1}{2}$
" "	39	113 2,897·4	...	...	4·09 104·87	...	1 25·6	...	...	...	...	...	...	...	...	...	...	152	Saugor, 2 $\frac{3}{4}$ months; (arrived from England on the 8th October 1896)	0 3
" "	160	122 762·5	1 6·25	3 18·75	9·66 60·38	6·3	2 12·5	1 6·25	...	...	...	...	...	...	...	...	...	...	Bangalore, 12 months.	13 0
" "	168	246 1,464·3	4 23·81	3 17·86	13·83 82·32	...	...	...	...	...	...	1 5·95	1 5·95	...	...	...	...	...	Saugor, 9 $\frac{1}{2}$ months; Dinapore, 2 $\frac{2}{3}$ months.	5 2
" "	122	237 1,942·6	4 32·79	5 40·98	17·95 147·13	8·2	5 41·0	1 8·20	2 16·39	...	...	...	...	...	...	1 8·20	...	...	Jhansi, 10 months; (left for England on the 28th October 1896).	15 9 $\frac{1}{2}$
" "	147	195 1,326·5	...	2 13·61	12·25 83·33	...	3 20·4	...	...	...	...	...	...	...	...	...	...	...	Meean Meer, 11 $\frac{1}{3}$ months; Practice Camp Muridki, $\frac{2}{3}$ month.	13 2
" "	150	196 1,306·7	3 20·00	4 26·67	13·95 93·00	...	2 13·3	...	1 6·67	...	1 6·67	1 6·67	...	...	...	...	...	...	Rawalpindi, 11 $\frac{1}{5}$ months; Campbellpur, $\frac{2}{5}$ month; marching $\frac{1}{5}$ month.	12 2
" "	144	129 895·8	1 6·94	3 20·83	7·75 53·82	...	2 13·9	...	1 6·94	...	...	...	...	...	...	...	33	...	Campbellpur 10 $\frac{1}{3}$ months; Rawalpindi, $\frac{2}{5}$ month; marching 1 month.	9 0
" "	137	197 1,438·0	5 36·50	3 21·90	14·25 104·01	...	13 94·9	...	4 29·20	...	...	...	...	...	...	...	156	...	Kirkee, 10 $\frac{3}{4}$ months; (arrived from England on the 7th February 1896).	0 11
" "	157	223 1,420·4	5 31·85	3 19·11	15·10 96·18	...	5 31·8	...	1 6·37	...	...	...	...	...	2 12·74	2 12·74	27	...	Jubbulpore, 11 months; Practice Camp Dhana, 1 month.	13 2
" "	148	186 1,256·8	...	7 47·30	13·65 92·23	...	3 20·3	...	...	...	...	...	...	...	...	1 6·76	...	...	Bangalore, 12 months.	11 0
" "	164	286 1,743·9	2 12·20	4 24·39	19·30 117·68	...	1 6·1	...	...	...	...	...	...	...	...	...	...	...	Mhow, 11 $\frac{1}{3}$ months; Practice Camp Badanawar, $\frac{2}{3}$ month.	10 0
" "	166	182 1,096·4	1 6·02	6 36·14	9·68 58·31	...	1 6·0	...	...	...	...	...	...	...	...	...	36	...	St. Thomas' Mount, 12 months.	5 2
" "	156	237 1,519·2	3 19·23	8 51·28	17·02 109·10	...	7 44·9	...	2 12·82	...	...	...	...	...	...	...	...	...	Agra, 11 months; marching 1 month.	6 2
" "	149	126 845·6	1 6·71	2 13·42	7·55 50·67	...	4 26·8	...	1 6·71	...	...	...	...	...	...	...	...	...	Kamptee, 12 months.	13 2
" "	127	181 1,425·2	2 15·75	4 31·50	11·92 93·86	...	4 31·5	...	2 15·75	...	...	...	...	...	...	...	36	...	Kirkee, $\frac{1}{2}$ month; Nasirabad, 10 $\frac{1}{3}$ months; marching $\frac{1}{8}$ month.	9 2
" "	159	179 1,125·8	2 12·58	7 44·03	12·48 78·49	...	3 18·9	...	...	...	...	...	...	...	1 6·29	...	...	...	Belgam, 12 months.	3 2
" "	29	43 1,482·8	...	...	1·77 61·03	...	3 103·4	...	...	...	...	...	...	...	...	...	157	...	Fyzabad, 2 $\frac{1}{8}$ months; (arrived from England on the 26th October 1896).	0 2
" "	147	246 1,673·5	2 13·61	7 47·62	15·27 103·88	...	5 34·0	...	1 6·80	...	...	...	...	...	...	...	40	...	Meean Meer, 12 months.	8 2

TABLE XIV—*continued.*

STATISTICS OF REGIMENTS.

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	ADMISSIONS AND ADMIS- SION-RATES.		DEATHS AND DEATH-RATES.									Arrivals in India in 1896.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.			
33rd Field Battery, Royal Artillery.	151	148 980·1	1 6·62	3 19·87	13·80 91·39	...	3 19·9	...	1 6·62	...	...	...	...	...	...	...	...	Secunderabad, 12 months.	5 2
34th " "	152	168 1,105·3	1 6·58	3 19·74	13·05 85·86	...	4 26·3	...	1 6·58	...	...	...	...	...	...	...	30	Meerut, 11 months; marching 1 month.	6 2
35th " "	144	258 1,791·7	1 6·94	8 55·56	15·89 110·35	...	2 13·9	...	...	...	...	1 6·94	...	...	...	...	...	Deesa, 12 months.	8 2
36th " "	138	321 2,326·1	3 21·74	4 28·99	18·41 133·41	...	1 7·2	...	1 7·25	...	...	...	1 7·25	...	...	...	...	Kirkee, $\frac{1}{2}$ month; Neemuch, $10\frac{1}{2}$ months; marching 1 month.	9 2
39th " "	129	221 1,713·2	4 31·01	5 38·76	15·93 123·49	...	3 23·3	...	1 7·75	...	...	1 7·75	...	...	...	...	...	Fyzabad, $10\frac{1}{3}$ months; (left for England on the 11th November 1896).	15 10
40th " "	144	129 895·8	1 6·94	4 27·78	7·95 55·21	...	3 20·8	...	...	...	...	...	...	...	...	1 6·94	...	Kirkee, $\frac{2}{3}$ month; Ahmednagar, $11\frac{2}{3}$ months; marching $\frac{1}{3}$ month.	3 2
41st " "	148	312 2,108·1	4 27·03	5 33·78	16·59 112·09	...	15 101·4	...	...	1 6·76	...	1 6·76	...	...	...	...	1 6·76	Barrackpore, 12 months; Detachment, Fort William, $1\frac{1}{2}$ months.	1 2
42nd " "	151	138 913·9	...	5 33·11	12·48 82·65	...	2 13·2	...	...	...	...	...	...	...	...	...	43	Secunderabad, 12 months.	10 6
44th " "	15	8 533·3	...	4 266·67	·07 4·67	...	...	...	1 ...	...	...	...	...	...	...	...	...	Mhow, 2 days; Kirkee, 5 days; marching 1 month, 3 days; (left for England on the 11th February 1896).	15 1
45th " "	158	193 1,221·5	...	9 56·96	13·21 83·61	...	1 6·3	...	...	...	...	...	...	...	...	...	...	Bellary, 12 months.	3 1
46th " "	152	273 1,796·1	3 19·74	9 59·21	15·79 103·88	...	2 13·2	...	1 6·58	...	...	1 6·58	...	...	...	...	...	Cawnpore, $10\frac{1}{3}$ months; marching $1\frac{2}{3}$ months.	6 1
47th " "	156	220 1,410·3	1 6·41	6 38·46	13·91 89·17	...	2 12·8	...	...	...	...	...	...	...	...	...	55	Kurrachee, $1\frac{1}{3}$ months; Hyderabad, $10\frac{1}{3}$ months; marching $\frac{1}{3}$ month.	5 1
48th " "	149	185 1,241·6	3 20·13	7 46·98	11·49 77·11	...	5 33·6	...	...	...	...	...	...	...	...	...	33	Bareilly, $10\frac{2}{3}$ months; marching $1\frac{1}{3}$ months.	9 1
49th " "	146	179 1,226·0	2 13·70	2 13·70	8·61 58·97	...	2 13·7	...	1 6·85	...	...	...	...	...	...	1 6·85	53	St. Thomas' Mt., 12 months.	5 1
50th " "	151	187 1,238·4	1 6·62	10 66·23	13·24 87·68	...	5 33·1	...	...	...	...	...	...	...	...	...	...	Jullundur, $10\frac{2}{3}$ months; Practice Camp Muridki and Khana, $1\frac{1}{3}$ months.	10 1
51st " "	158	167 1,057·0	4 25·32	4 25·32	10·64 67·34	...	2 12·7	...	2 12·66	...	...	...	1 6·33	...	...	...	...	Meerut, 11 months; marching 1 month.	6 1
53rd " "	161	391 2,428·6	1 6·21	...	17·03 105·78	...	1 6·2	...	...	...	...	...	...	...	...	...	42	Kurrachee, 12 months.	10 1
54th " "	151	208 1,377·5	1 6·62	1 6·62	14·10 93·38	...	6 39·7	...	1 6·62	...	...	...	...	...	...	...	...	Allahabad, 12 months.	6 1
55th " "	145	474 3,269·0	8 55·17	12 82·76	23·43 161·59	1 6·9	2 13·8	1 6·90	1 6·90	...	...	...	...	1 6·90	1 6·90	...	...	Ahmedabad, $9\frac{1}{2}$ months; Practice Camp Khara-goda, $\frac{1}{2}$ month; marching 2 months.	8 1
57th " "	15	15 1,000·0	...	...	·71 47·33	...	1 66·7	...	...	...	...	...	...	...	...	...	154	Campbellpur, 1 month; (arrived from England on the 27th November 1896).	0 1

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	ADMIS- SIONS AND ADMIS- SION- RATES.		DEATHS AND DEATH-RATES.										Arrivals in India in 1896.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.				
1st Field Bat- tery, Royal Artillery.	115 {	314 2,093'3	...	3 20'00	19'60 130'67	...	1 8'7	...	...	...	...	...	...	...	...	...	...	...	Nowgong, 11 months; Prac- tice Camp- Dhana, 1 month	12 2
2nd " "	158 {	234 1,481'0	4 25'32	1 6'33	15'75 99'68	...	3 19'0	...	...	...	...	1 6'33	...	...	1 6'33	1 6'33	...	31	Mooltan, 12 months	10 0
3rd " "	15 {	8 533'3	...	1 66'67	20 13'33	...	...	...	...	...	...	...	...	...	...	...	...	...	Mhow, 2 days; Kirkee, 5 days; marching 1 month 3 days; (left for England on the 11th Feb- ruary 1896).	15 1½
4th " "	124 {	220 1,774'2	1 8'06	5 40'32	12'32 99'35	...	5 40'3	...	1 8'06	...	...	...	...	...	...	...	...	36	Peshawar, 10 months; Camp- bellpur, 3 days; marching 3 days; (left for England on the 6th Nov- ember 1896).	15 9½
5th " "	146 {	196 1,342'5	1 6'85	4 27'40	12'01 82'26	...	4 27'4	...	1 6'85	...	...	...	...	...	...	...	...	...	Lucknow, months.	12 10 1½
1st " "	146 {	146 1,000'0	1 6'85	4 27'40	7'60 52'05	...	1 6'8	...	...	...	...	1 6'85	...	...	...	...	...	...	Ferozepore, 11 months; Practice Camp Muridki, 1 month.	9 0
2nd " "	138 {	204 1,478'3	8 57'97	1 7'25	13'48 97'68	...	6 43'5	...	4 28'99	...	...	...	...	...	...	1 7'25	3 21'74	...	Kirkee, 12 months	8 2
3rd " "	18 {	52 2,888'9	2 111'11	...	2'12 117'78	...	3 166'7	...	2 111'11	...	...	...	...	...	...	...	...	152	Jhansi, 1½ months; (arrived from England on the 19th November 1896).	0 1½
No. 1 Moun- tain Battery, Royal Artillery	96 {	129 1,343'7	...	1 10'42	7'81 81'35	...	1 10'4	...	...	...	...	...	...	...	...	...	...	...	Umballa, 1½ months; Ju- togh, 8½ months; marching 2 months.	13 2
" 2 " "	100 {	138 1,380'0	4 40'00	2 20'00	9'59 95'90	...	13 130'0	...	2 20'00	...	...	...	...	...	...	...	...	32	Quetta, 10½ months; march- ing 1½ months.	10 11
" 3 " "	99 {	87 878'8	...	6 60'61	5'64 56'97	...	...	...	...	...	...	...	...	...	...	...	...	...	Rawalpindi, 2½ month; Um- balla 3 months; Jutogh, 9½ months; mar- ching 1½ months.	18 1
" 5 " "	103 {	116 1,126'2	1 9'71	1 9'71	6'94 67'38	...	...	...	...	...	...	...	...	...	1 9'71	...	...	...	Quetta, 1½ months; Rawalpindi, 3½ months; Bara- gully, 6 months; marching 1 month.	18 1
" 6 " "	83 {	157 1,891'6	2 24'10	4 48'19	11'98 144'34	...	1 12'0	...	1 12'05	...	...	...	...	...	...	...	...	...	Fort Dufferin, 10 months; Prac- tice Camp Maymyo, 2 months.	11 2
" 7 " "	109 {	149 1,367'0	1 9'17	1 9'17	7'99 73'30	...	1 9'2	...	1 9'17	...	...	...	...	...	...	...	...	...	Rawalpindi, 6 months; Khyra- gully, 6 months.	10 10
" 8 " "	99 {	116 1,171'7	1 10'10	2 20'20	6'06 61'21	1 10'1	...	1 10'10	...	...	...	...	...	...	...	...	...	...	Rawalpindi, 5½ months; Kala- bagh, 6 months; marching ½ month.	9 2
" 9 " "	98 {	72 734'7	2 20'41	...	4'35 44'39	...	...	...	...	...	...	...	...	...	1 10'20	...	...	...	Darjeeling, 9½ months; Camps, Bagdogra and Gantak, 2½ months.	12 2
No. 1 Eastern Division, Royal Artillery.	132 {	274 2,075'8	6 45'45	6 45'45	15'32 116'06	...	3 22'7	...	1 7'58	...	...	...	...	...	...	1 7'58	...	...	Colaba, 2½ months; Delhi, 7½ months; Fort William, 2½ month; Fort Fulta, 1½ months; marching by rail ½ month.	8 0

EUROPEAN TROOPS, 1896.

TABLE XIV—continued.

STATISTICS OF REGIMENTS.

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	ADMIS- SIONS AND ADMIS- SION- RATES.		DEATHS AND DEATH-RATES.										Arrivals in India in 1896.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.				
No. 3 Eastern Division, Royal Artillery.	140 {	105 750'0	...	2 14'29	6'64 47'43	Colaba, 12 months.	2
" 4 " "	132 {	147 1,113'6	...	5 37'88	3'90 29'55	...	...	...	...	...	...	...	...	...	...	...	14	Madras, 12 months	8
" 8 " "	113 {	122 1,079'6	...	8 70'80	6'93 61'33	...	...	...	...	...	...	...	...	...	...	...	...	Fort Fulta, 12 months; Fort William, 8 months; Delhi, 2 months.	9
" 9 " "	139 {	244 1,755'4	2 14'39	...	11'16 80'29	...	7 50'4	...	2 14'39	...	...	...	...	...	...	...	5	Fort Allahabad, 10 months; Fort Chingrikhal, 12 months.	1
" 12 " "	86 {	92 1,069'8	1 11'63	1 11'63	6'62 76'98	...	2 23'3	...	1 11'63	...	...	...	...	...	...	...	...	Campbellpur, 12 months; Detachment, Thobba, 6 months.	2
" 13 " "	119 {	240 2,016'8	5 42'02	3 25'21	10'84 91'09	...	5 42'0	...	...	1 8'40	1 8'40	...	...	1 8'40	...	1 8'40	...	Fort Chingrikhal, 12 months; Barrackpore, 9 months; Aden, 1 month; marching by rail, 1 month.	10
" 24 " "	130 {	112 861'5	...	4 30'77	7'54 58'00	...	...	...	...	...	...	...	...	...	...	...	...	Colaba, 12 months.	2
" 26 " "	136 {	163 1,198'5	2 14'71	...	10'38 76'32	...	1 7'4	...	...	...	...	...	...	...	...	1 7'35	20	Roorkee, 11 months; Practice Camp Pur, 1 month.	2
No. 3 Southern Division, Royal Artillery.	128 {	115 898'4	1 7'81	3 23'44	5'64 44'06	...	...	...	...	...	...	...	...	...	...	...	...	Aden, 11 months; (left for England on the 17th December 1896).	15
" 5 " "	120 {	174 1,450'0	5 41'67	6 50'00	10'97 91'42	...	3 25'0	...	3 25'00	...	...	1 8'33	1 8'33	...	...	...	16	Rawalpindi, 10 months; Agra, 2 months.	9
" 7 " "	131 {	169 1,290'1	6 45'80	3 22'90	15'77 120'38	...	13 99'2	...	3 22'90	...	1 7'63	...	...	1 7'63	...	...	...	Quetta, 12 months.	11
" 9 " "	131 {	139 1,061'1	2 15'27	4 30'53	8'67 66'18	...	...	...	...	...	...	...	1 7'63	...	...	...	...	Aden, 12 months.	9
" 11 " "	133 {	153 1,150'4	...	9 67'67	15'78 118'65	...	2 15'0	...	...	...	...	...	...	...	...	...	15	Rangoon, 12 months.	7
" 18 " "	128 {	143 1,117'2	1 7'81	4 31'25	9'23 72'11	...	1 7'8	...	...	...	...	...	1 7'81	...	...	...	19	Ferozepore, 11 months; Kurra- chee, 1 month. Detachment, Amritsar, 12 months.	7
" 21 " "	128 {	84 656'3	...	7 54'69	5'58 43'59	...	...	...	...	...	...	...	...	...	...	...	...	Aden, 12 months.	7
" 23 " "	133 {	127 954'9	2 15'04	3 22'56	7'10 53'38	...	1 7'5	...	...	...	...	...	...	...	...	...	2	Colaba, 12 months.	2
" 24 " "	89 {	162 1,820'2	2 22'47	4 44'94	10'82 121'57	...	1 11'2	...	...	...	...	1 11'24	...	...	...	...	...	Mooltan, 12 months.	9
" 28 " "	142 {	180 1,267'6	1 7'04	3 21'13	18'85 132'75	...	12 84'5	...	...	...	...	...	...	1 7'04	...	...	...	Quetta, 12 months.	13
" 33 " "	7 {	15 2,142'9	1 142'86	...	32 45'71	...	...	...	...	...	...	...	...	...	...	...	145	Rawalpindi, 3 months; (arrived from England on the 12th December 1896).	0

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	ADMIS- SIONS AND ADMIS- SION- RATES.		DEATHS AND DEATH-RATES.									Arrivals in India in 1896.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abs- cess.			
1. 4. Western Division, Royal Artillery.	119 {	168 1,411'8	1 8'40	5 42'02	12'52 105'21	...	16'8	...	...	...	...	...	...	...	8'40	...	26	Roorkee, 11½ months; Camp Pur ⅔ month.,	2 2
5 " "	143 {	200 1,398'6	1 6'99	7 48'95	10'48 73'29	...	...	...	...	...	...	...	...	...	...	6'99	...	Fort Attock, 5½ months; Rawalpindi, ¼ month; Thobha, 6¼ months; De- tachment, Fort Attock, 6 months.	4 2
7 " "	95 {	88 926'3	...	5 52'63	8'74 92'00	...	3 31'6	...	...	...	...	...	...	...	...	...	...	Secunderabad, 12 months.	2 2
9 " "	89 {	132 1,483'1	...	3 33'71	10'64 119'55	...	3 33'7	...	...	...	...	...	...	...	...	...	...	Jhansi, 11½ months, Camp Palipahari, ⅓ month.	2 2
11 " "	130 {	108 830'8	1 7'69	4 30'77	7'50 57'69	...	2 15'4	...	...	...	...	...	...	...	...	...	...	Kurrachee, 12 months.	9 2
16 " "	115 {	166 1,443'5	6 52'17	5 43'48	11'64 101'22	...	8 69'6	...	3 26'09	...	...	...	2 17'39	...	8'70	...	...	Colaba, 2½ months; Agra 7½ months; Barrackpore, ½ month; Fort Chingrikhal, 1½ months.	9 2
18 " "	131 {	204 1,557'3	2 15'27	11 83'97	17'22 131'45	...	2 15'3	...	1 7'63	...	...	...	...	...	...	...	15	Rangoon, 12 months.	2 2
22 " "	135 {	175 1,296'3	2 14'81	4 29'63	13'69 101'41	...	...	...	...	...	...	...	...	...	1 7'41	...	27	Roorkee, 11½ months; Camp Pur, ⅔ month.	11 2½
TOTAL	12,162 {	16,354 1,344'7	188 15'46	381 31'33	1,051'98 86'50	5 4	307 25'2	4 33	73 6'00	2 16	3 25	11 90	10 82	10 82	8 66	16 1'32	*		
1. Company, ROYAL EN- GINEERS.	93 {	44 473'1	...	1 10'75	1'95 20'97	1 10'8	3 32'3	...	...	...	...	...	...	...	...	...	23	Fort William, Fort Fulta, Allaha- bad, Roorkee, Bangalore, Kirkee and Colaba.	29 0
INFANTRY.																			
nd Royal Scots	935 {	1,393 1,489'8	7 7'49	30 32'09	96'14 102'82	1 1'1	2 2'1	1 1'07	...	...	...	1 1'07	...	...	2 2'14	2 2'14	253	Fort Dufferin, 12 months.	4 9
st Royal West Surrey Regi- ment.	966 {	1,317 1,363'4	17 17'60	47 48'65	95'02 98'36	...	44 45'5	...	12 12'42	...	...	...	2 2'07	1 1'04	...	...	255	Umballa, 4½ months; Dag- shai, 7½ months; marching ½ month; Detach- ment, Dagshai, 5 months.	1 11
st East Kent Regiment.	931 {	1,337 1,436'1	19 20'41	26 27'93	80'36 86'32	...	42 45'1	...	12 12'89	...	1 1'07	...	1 1'07	1 1'07	1 1'07	1 1'07	185	Peshawar, 12 months; De- tachment, Che- rat, 5½ months.	9 9
1st Royal Fusiliers.	931 {	1,613 1,732'5	17 18'26	20 21'48	118'61 127'40	4 4'3	34 36'5	4 4'30	7 7'52	1 1'07	...	...	2 2'15	...	1 1'07	...	223	Mhow, 12 months; Detachment, Indore, 12 months.	9 0
1st Norfolk Re- giment.	960 {	1,384 1,441'7	41 42'71	23 23'96	97'42 101'48	...	93 96'9	...	32 33'33	...	1 1'04	2 2'08	...	...	2 2'08	...	264	Allahabad, 12 months; Detach- ment, Fort Aliahabad, 12 months.	7 10
st Devonshire Regiment.	1,007 {	925 918'6	17 16'88	31 30'78	59'38 58'97	...	36 35'7	...	9 8'94	...	1 99	1 99	1 99	4 3'97	...	...	175	Peshawar, 6 months; Cherat, 6 months; De- tachment, Pesh- awar, 6 months.	4 0
nd Suffolk Regi- ment.	949 {	1,512 1,593'3	13 13'70	41 43'20	105'32 110'98	1 1'1	9 9'5	1 1'05	1 1'05	...	...	...	1 1'05	1 1'05	3 3'16	2 2'11	250	Rangoon, 12 months; Detach- ment, Port Blair, 10 months.	5 10

* In the case of 1386 arrivals the battery was not mentioned in the returns : 209 belonged to R. H. A. ; 180 to M. A. ; 699 to F. A. ; 129 to E. D., R. A. ; 123 to W. D. R. A. ; and 46 to S. D., R. A.

EUROPEAN TROOPS, 1896.

TABLE XIV—continued.

STATISTICS OF REGIMENTS.

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	ADMIS- SIONS AND ADMIS- SON- RATES.		DEATHS AND DEATH-RATES.										Arrivals in India in 1896.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	ysentery.	Hepatic Abs- cess.				
1st Somersetshire Light Infantry.	1,012 {	1,412 1,395·3	16 15·81	20 19·76	91·07 89·99	...	37 36·6	...	5 4·94	...	1 ·99	3 2·96	...	...	1 ·99	2 1·98	...	162	Meean Meer, 12 months; Detatch- ment, Dalhousie, 12 months, Fort Lahore, 12 months.	Y. M. 3 0
1st East York- shire Regiment.	992 {	1,171 1,180·4	6 6·05	17 17·14	78·69 79·32	...	5 5·0	...	1 1·01	...	...	...	...	...	1 1·01	1 1·01	...	151	Belgam, months.	12 1 1
1st Bedfordshire Regiment.	932 {	1,556 1,669·5	14 15·02	23 24·68	101·11 108·49	...	23 24·7	1 1·07	5 5·36	...	...	...	...	...	3 3·22	1 1·07	1 1·07	350	Umballa, 12 months; Wing. Solon, 6½ months; Detach- ment, Dagshai, 6 months.	12 6 0
2nd Royal Irish Regiment.	955 {	1,963 2,055·5	22 23·04	24 25·13	126·35 132·30	2 2·1	24 25·1	2 2·09	2 2·09	1 1·05	1 1·05	...	...	1 1·05	3 3·14	4 4·19	4 4·19	131	Jubbulpore, 12 months; Detach- ment, Saugor, 12 months.	11 11
2nd Yorkshire Regiment.	890 {	1,493 1,677·5	13 14·61	49 55·06	96·42 108·34	...	52 58·4	...	8 8·99	...	...	...	...	...	1 1·12	1 1·12	1 1·12	246	Shwebo, ½ month; Bareilly, 2½ months; Rani- khet, 8 months; marching ¾ month.	6 11
2nd Lancashire Fusiliers.	952 {	1,245 1,307·8	14 14·71	17 17·86	96·48 101·34	...	54 56·7	...	9 9·45	...	...	...	...	...	...	...	1 1·05	74	Quetta, 12 months	15 2
1st Royal Scots Fusiliers.	155 {	191 1,232·3	2 12·90	1 6·45	10·89 70·26	...	3 19·4	...	...	...	1 6·45	...	...	...	...	...	...	408	Sialkot, 2 months; (arrived from England on the 26th October 1896).	0 2
2nd Royal Scots Fusiliers.	806 {	796 987·6	8 9·93	14 17·37	52·15 64·70	1 1·2	5 6·2	1 1·24	4 4·96	...	...	...	...	...	...	...	...	117	Sialkot, 9½ months; (left for England on the 25th October 1896); Detachment, Amritsar, 9½ months; Ghora Dhaka 5 months.	14 9
1st Cheshire Regiment.	960 {	1,495 1,557·3	9 9·38	38 39·58	115·71 120·53	...	6 6·3	...	1 1·04	...	...	1 1·04	...	...	...	...	2 2·08	...	Bellary, 10½ months; Secun- derabad, 1½ months; Wing, Madras, 10½ months.	9 2
1st Royal Welsh Fusiliers.	877 {	1,912 2,180·2	21 23·95	29 33·07	140·19 159·85	11 12·5	18 20·5	9 10·26	5 5·70	...	1 1·14	1 1·14	...	...	...	...	1 1·14	41	Jhansi, 9½ months; Aden, 2 months; marching by rail ½ month; Wing, Nowgong, 9½ months; Detach- ment, Jhansi, 2½ months.	16 3
2nd King's Own Scottish Borderers.	942 {	1,270 1,348·2	11 11·68	19 20·17	84·76 89·98	1 1·1	9 9·6	1 1·06	4 4·25	...	...	1 1·06	...	...	3 3·18	...	2 2·12	203	Rawalpindi, 12 months; Wing, Thobba, 6½ months.	6 11
1st Scottish Rifles	1,011 {	1,457 1,441·1	8 7·91	35 34·62	108·73 107·55	...	3 3·0	...	1 ·99	...	...	1 ·99	...	2 1·98	...	...	1 ·99	240	Bareilly, 3½ months; Chau- buttia, 7½ months; Shah- jahanpur, 1 month; march- ing ½ month; Wing, Shah- jahanpur, 11 months.	2 0
2nd Royal Innis- killing Fusi- liers.	883 {	1,214 1,374·9	4 4·53	37 41·90	93·41 105·79	...	7 7·9	...	...	...	...	...	...	1 1·13	1 1·13	...	...	215	Thayetmyo, 2½ months; Chak- rata, 7 months; Meerut, 1½ months; march- ing 1 month; Detachment, Meiktila, 2½ months; Meerut, 3 months.	8 0

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	ADMISSIONS AND ADMISSION-RATES.		DEATHS AND DEATH-RATES.										Arrivals in India in 1896.	Stations occupied during the year.	Year of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.				
1st Worcester-shire Regiment.	516 {	676 1,310'1	5 9'69	31 60'08	36'57 70'87	...	3 5'8	...	3'88	...	...	1 1'94	...	...	...	...	...	...	Aden, 10 months; (left for England on the 29th October 1896).	Y. M. 17 8
1st East Lancashire Regiment.	898 {	1,439 1,602'4	5 5'57	43 47'88	105'61 117'61	...	...	...	1'11	...	...	...	...	...	...	2'23	2	312	Lucknow, 1½ months; Thayetmyo, 9½ months; marching by rail ¾ month; Wing, Meiktila, 9½ months; Detachment, Rangoon, ½ month.	16 11
1st East Surrey Regiment.	1,063 {	1,366 1,285'0	19 17'87	28 26'34	110'41 103'87	...	43 40'5	...	10 9'41	...	...	1 '94	...	1 '94	...	1 '94	1	113	Agra, 10 months; Jhansi, 2 months; Detachment, Nowgong, 2½ months.	11 11½
1st Duke of Cornwall's Light Infantry.	956 {	1,478 1,546'0	24 25'10	21 21'97	106'17 111'06	...	35 36'6	...	13 13'60	...	...	3 3'14	2 2'09	...	1 1'05	...	...	216	Meerut, 1½ months; Lucknow, 9½ months; marching, 1 month; Detachment, Chakrata, 6 months.	8 10
2nd Border Regiment.	954 {	1,369 1,435'0	11 11'53	24 25'16	110'35 115'67	...	48 50'3	...	9 9'43	...	...	...	1 1'05	...	...	...	...	301	Mooltan, 2½ months; Quetta, 9½ months.	6 10
2nd Royal Sussex Regiment.	972 {	1,441 1,482'5	30 30'86	26 26'75	103'12 106'09	...	37 38'1	...	14 14'40	1 1'03	1 1'03	1 1'03	3 3'09	1 1'03	1 1'03	6 6'17	6	204	Fyzabad, 12 months; Detachment, Chakrata, 6 months.	11 0
1st Hampshire Regiment.	984 {	1,317 1,338'4	19 19'31	20 20'33	81'53 82'86	...	18 18'3	...	9 9'15	...	1 1'02	3 3'05	...	1 1'02	...	1 1'02	1	92	Bareilly, 1½ months; Practice Camp Pur, 1 month; Mooltan, 9½ months; Detachment, Dalhousie, 9½ months.	10 11
2nd South Staffordshire Regiment.	988 {	1,243 1,258'1	16 16'19	5 5'06	79'13 80'09	...	34 34'4	...	15 15'18	...	...	...	...	...	...	...	...	201	Wellington, 12 months; Detachment, Mallapuram, 12 months; Cannanore, 12 months; Calicut, 12 months.	1 2
1st Dorsetshire Regiment.	953 {	1,027 1,077'6	13 13'64	31 32'53	89'06 93'45	3 3'1	17 17'8	3 3'15	7 7'35	...	...	...	1 1'05	...	...	...	...	75	Bangalore, 12 months.	3 3
2nd South Lancashire Regiment.	921 {	1,055 1,145'5	14 15'20	22 23'89	70'90 76'98	...	14 15'2	...	6 6'51	...	1 1'09	...	1 1'09	...	...	1 1'09	1	50	Kamptee, 12 months.	1 10
2nd Welsh Regiment.	921 {	1,686 1,830'6	12 13'03	69 74'92	132'21 143'55	...	24 26'1	...	6 6'51	...	...	2 2'17	...	1 1'09	1 1'09	...	...	288	Secunderabad, 10½ months; Bellary, 1½ months; Detachment, Madras, 1½ months; Wellington, 12 months.	4
1st Royal Highlanders.	769 {	1,275 1,658'0	26 33'81	16 20'81	77'41 100'66	...	133 173'0	...	20 26'01	...	1 1'30	...	...	...	...	5 6'50	5	1,051	Umballa, 3 months; Subathu, 6½ months; marching ½ month; (arrived from Mauritius on the 26th February 1896); Detachment, Jutogh, 7½ months; Subathu, 3 months.	0 10
2nd Oxfordshire Light Infantry.	944 {	1,410 1,493'6	12 12'71	39 41'31	97'12 102'88	...	46 48'7	...	9 9'53	...	...	...	1 1'06	...	...	1 1'06	1	46	Bareilly, 12 months; Detachment, Ranikhet, 7 months.	10 9
2nd Essex Regiment.	982 {	1,065 1,084'5	20 20'37	33 33'60	87'45 89'05	...	22 22'4	...	4 4'07	...	...	1 1'02	2 2'04	...	3 3'05	4 4'07	4	231	Lucknow, 12 months; Detachment, Ranikhet, 7 months.	4 2

EUROPEAN TROOPS, 1896.

TABLE XIV—continued.

STATISTICS OF REGIMENTS.

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	ADMISSIONS AND ADMIS- SION- RATES.		DEATHS AND DEATH-RATES.										Arrivals in India in 1896.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abs- cess.				
2nd Derbyshire Regiment.	921 {	1,360 1,476·7	28 30·40	32 34·74	82·52 89·60	12 13·0	65 70·6	7 7·60	13 14·12	...	1 1·09	...	1 1·09	...	...	4 4·34	62	Sitapur, 12 months; Wing, Benares, 12 months; Detach- ment, Ranikhet, 6½ months.	Y. M. 14 2
1st Loyal North Lancashire Re- giment.	113 {	127 1,123·9	1 8·85	18 159·29	9·13 80·80	...	...	...	...	...	...	...	...	...	...	1 8·85	...	Poona, 1½ months; (left for Ceylon on the 17th Feb- ruary 1896).	12 ½
1st Northamp- tonshire Re- giment.	1,017 {	1,189 1,169·1	11 10·82	15 14·75	84·42 83·01	...	52 51·1	...	8 7·87	...	...	...	1 ·98	...	...	...	262	Secunderabad, 12 months; Detach- ment, Wel- lington, 12 months.	4 2
1st Royal West Kent Regi- ment.	945 {	1,577 1,668·8	13 13·76	22 23·28	100·30 106·14	...	28 29·6	...	8 8·47	...	...	2 2·12	1 1·06	1 1·06	...	1 1·06	226	Meerut, 12 months; Detachment, Delhi, 12 months; Chakrata, 6 months.	4 11
2nd King's Own Yorkshire Light Infantry.	986 {	1,894 1,920·9	24 24·34	18 18·26	107·10 108·62	...	31 31·4	...	13 13·18	...	...	1 1·01	1 1·01	3 3·04	1 1·01	2 2·03	...	Nasirabad, 12 months; Detach- ment, Neemuch, 11½ months, Tara- garh, 7 months; Poona, 12 months.	9 10
1st Shropshire Light Infantry.	932 {	1,305 1,400·2	15 16·09	42 45·06	91·64 98·33	1 1·1	11 11·8	1 1·07	5 5·36	...	...	...	1 1·07	...	4 4·29	2 2·15	168	Fort William, 12 months; Detach- ment, Dum- Dum, 11 months.	2 0
2nd Middlesex Regiment.	1,019 {	1,244 1,220·8	11 10·79	14 13·74	80·84 79·33	1 1·0	15 14·7	1 ·98	4 3·93	...	...	...	...	1 ·98	...	...	160	Ahmednagar, 12 months; Detach- ments, Satara, 12 months; Kirkee, 10 months.	16 3½
1st King's Royal Rifle Corps.	873 {	882 1,010·3	7 8·02	23 26·35	62·10 71·13	...	12 13·7	...	5 5·73	...	...	...	...	...	...	1 1·15	125	Jullundur, 11 months; (left for Mauritius on 30th November 1896).	5 11
1st Wiltshire Re- giment.	999 {	2,216 2,218·2	12 12·01	23 23·02	103·30 103·40	...	12 12·0	...	4 4·00	...	...	2 2·00	...	...	1 1·00	2 2·00	165	Kurrachee, 12 months; Detach- ment, Hyderabad, 9½ months.	1 3
2nd Manchester Regiment.	930 {	1,221 1,312·9	6 6·45	20 21·51	84·05 90·38	1 1·1	6 6·5	1 1·08	1 1·08	...	...	...	...	...	...	2 2·15	267	Dinapore, 12 months; Detach- ment, Darjeeling, 12 months.	14 2
2nd Durham Light Infantry.	955 {	1,228 1,285·9	19 19·90	38 39·79	81·02 84·84	10 10·5	24 25·1	10 10·47	6 6·28	...	...	...	...	1 1·05	1 1·05	...	144	Mhow, 2 months; Poona, 11½ months.	10 0
2nd Highland Light Infantry.	984 {	1,281 1,301·8	12 12·20	32 32·52	93·18 94·70	...	23 23·4	...	3 3·05	...	...	...	...	...	...	5 5·08	168	Cawnpore, 12 months; Detach- ment, Fatehgarh, 12 months; Chakrata, 6 months.	12 2
2nd Seaforth Highlanders.	976 {	1,604 1,643·4	13 13·32	20 20·49	102·31 104·83	...	7 7·2	...	2 2·05	...	...	2 2·05	...	1 1·02	1 1·02	...	71	Ferozepore, 12 months; Detach- ment, Dalhousie, 12 months.	17 9
1st Gordon High- landers.	974 {	1,070 1,098·6	11 11·29	22 22·59	71·38 73·29	...	4 4·1	...	2 2·05	...	1 1·03	...	...	2 2·05	1 1·03	1 1·03	219	Rawalpindi, 6½ months; Gharial, 5½ months.	4 11½
2nd Royal Irish Rifles.	963 {	1,304 1,354·1	18 18·63	26 27·00	68·72 71·36	3 3·1	10 10·4	3 3·12	5 5·19	...	...	...	2 2·08	1 1·04	2 2·08	1 1·04	241	Colaba, 2½ months; Poona, 9½ months; Detachment, Deesa, 2 months; Ahmedabad, 2 months.	2 1
1st Royal Irish Fusiliers.	883 {	1,406 1,592·3	9 10·19	23 26·05	90·31 102·28	...	12 13·6	...	1 1·13	...	...	...	3 3·40	...	...	...	316	Shwebo, 11½ months; march- ing by rail ½ month; Detach- ment, Bhamo, 11½ months; Poonamallee, 12 months.	13 2

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	ADMIS- SIONS AND ADMIS- SION- RATES.		DEATHS AND DEATH-RATES.									Arrivals in India in 1896.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abs- cess.			
d Argyll and Sutherland Highlanders.	939 {	1,462 1,557'0	10 10'65	25 26'62	88'95 94'73	... ...	27 28'8	...	5 5'32	...	3 3'19	...	...	...	...	...	280	Nowshera, 12 months; Detach- men', Cherat, 5½ months; Fort Attock, 12 months.	Y. M. 5 0
d Royal Mun- ster Fusiliers.	1,015 {	1,167 1,149'8	16 15'76	20 19'70	66'55 65'57	1 1'0	13 12'8	1 '99	5 4'93	...	2 1'97	...	...	...	...	4 3'94	114	Dum-Dum, 12 months; Detach- ment, Barrack- pore, 12 months.	12 9
d Royal Dublin Fusiliers.	933 {	1,622 1,738'5	13 13'93	24 25'72	85'81 91'97	1 1'1	...	1 1'07	...	...	1 1'07	1 1'07	1 1'07	...	3 3'22	...	330	Quetta, 2¼ months, Colaba, 9½ months; march- ing by rail ¼ month; Detach- ment, Deesa, 10 months; Deolali, 9½ months, Ahmedabad, 10 months.	10 10
d Rifle Brigade	967 {	1,044 1,079'6	6 6'20	20 20'68	72'57 75'05	...	6 6'2	...	3 3'10	...	1 1'03	...	...	1 1'03	...	...	299	Rawalpindi, 5½ months; Kuldun- nah, 6½ months.	7 10
TOTAL	49,191 {	70,706 1,437'4	760 15'45	1,426 28'99	4,761'45 96'80	54 1'1	1,338 27'2	48 '98	336 6'83	3 '06	20 '41	31 '63	33 '67	34 '69	38 '77	66 1'34			
arrison Staff, and Depart- ments,	3,523 {	3,973 1,127'7	13 3'69	34 9'65	351'12 99'66	1 '3	4 1'1	1 '28	2 '57	2 '57	1 '28	1 '28	1 '28	...	...	...	...	Various.	
Men of various corps march- ing.	113 {	40 354'0	9 79'65	...	1'23 10'88	7 61'9	...	8 70'80	...	...	...	...	...	...	...	...	...
GRAND TOTAL	70,484 {	97,738 1,386'7	1,046 14'84	1,966 27'89	6,614'74 93'85	70 1'0	1,795 25'5	63 '89	445 6'31	7 '10	28 '40	49 '70	45 '64	45 '64	47 '67	86 1'22			

EUROPEAN TROOPS, 1896.

TABLE XV.

A.—STRENGTH, ADMISSIONS from ALL CAUSES, ADMISSIONS from ENTERIC FEVER of the Army of India in 1896 in relation to AGE and LENGTH of RESIDENCE in INDIA.

	BY AGE.						BY LENGTH OF RESIDENCE.						
	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.	Under 1 year.	1 and less than 2.	2 and less than 3.	3 and less than 4.	4 and less than 5.	5 and less than 10.	10 years and upwards.
Strength	1,814	35,930	24,105	4,590	1,457	380	11,108	12,804	11,568	11,379	8,803	10,671	1,985
Per cent. of total	3	53	35	7	2	1	16	19	17	17	13	16	3
1890-94	3	49	37	8	3	1	16	17	17	15	14	17	3
Admissions from all causes	2,036	61,008	27,494	3,171	813	229	19,681	18,937	17,375	14,563	10,461	12,581	1,204
Admissions from Enteric Fever	50	1,307	357	26	2	...	697	352	285	188	106	110	4
All causes per 1,000	1,122.4	1,698.0	1,140.6	690.8	558.0	602.6	1,771.8	1,479.0	1,502.0	1,279.8	1,188.3	1,179.0	606.5
Enteric Fever per 1,000	27.6	36.4	14.8	5.7	1.4	...	62.7	27.5	24.6	16.5	12.0	10.3	2.0
Liability to Enteric Fever	32.13	42.37	17.23	6.64	1.63	...	40.30	17.67	15.81	10.60	7.71	6.62	1.29
Enteric Fever per cent. of all causes	2.46	2.14	1.30	.82	.25	...	3.54	1.86	1.64	1.29	1.01	.87	.33

NOTE.—Marching returns and returns wherein the classification by age and service was omitted have been excluded. Details of age and service of men admitted for enteric fever on the march are not available.

B.—CHANGE of PERSONNEL, YOUTHFULNESS, RECENT ARRIVAL, and MARRIAGE, in relation to VENEREAL DISEASE and ENTERIC FEVER.

YEAR.	ARRIVED IN INDIA.*		YEAR.	MEN.									
	Men.	Women.		PER CENT. OF STRENGTH.			Strength.	RATIO PER 1,000.			RATIO PER CENT. OF TOTAL ADMISSION.		
				Age.	Length of residence.	Married. ‡		Admissions.			Venereal Diseases.	Enteric Fever.	
								Under 25 years.	Under 5 years.	All causes.			Venereal Diseases.	Enteric Fever.
1870-71	8,805	826	1870	...	...	...	54,578	1,645'4	191'2	3'1	11'62	.19
1871-72	9,134	920	1871	40	...	11'19	56,806	1,449'6	196'8	3'6	13'58	.25	
1872-73	8,271	809	1872	39	...	11'32	58,870	1,497'0	179'0	3'8	11'96	.25	
1873-74	8,680	816	1873	39	...	11'26	58,769	1,328'1	166'7	3'6	12'55	.27	
1874-75	7,840	673	1874	38	...	11'10	59,308	1,357'7	192'7	4'1	14'20	.30	
1875-76	7,568	752	1875	36	...	10'80	58,409	1,337'8	205'1	2'8	15'33	.21	
1876-77	8,170	591	1876	33	...	10'37	57,858	1,361'5	189'9	4'6	13'95	.34	
1877-78	9,113	482	1877	33	56	9'70	57,260	1,257'3	208'5	4'1	16'59	.32	
1878-79	13,113	575	1878	35	60	7'59	56,475	1,651'3	271'3	8'5	16'43	.51	
1879-80	13,342	612	1879	39	61	6'63	59,082	1,871'2	234'8	8'0	12'55	.43	
1880-81	13,165	664	1880	41	65	6'36	59,717	1,754'2	249'7	7'9	14'23	.45	
1881-82	9,895	349	1881	43	70	5'94	58,728	1,604'6	260'5	5'6	16'23	.35	
1882-83	9,748	325	1882	41	72	5'43	57,269	1,444'9	265'2	6'2	18'35	.43	
1883-84	12,525	433	1883	41	75	5'20	55,525	1,335'7	270'3	7'7	20'23	.58	
1884-85	11,822	393	1884	45	75	5'05	54,996	1,513'4	293'9	11'7	19'42	.77	
1885-86	17,766	508	1885	48	73	4'23	56,967	1,532'7	342'7	11'2	22'36	.73	
1886-87	11,645	372	1886	52	75	3'90	61,015	1,513'9	389'5	18'1	25'73	1'20	
1887-88	11,729	459	1887	52	73	3'84	63,515	1,369'7	361'2	12'7	26'37	.93	
1888-89	12,407	506	1888	50	76	3'65	68,887	1,381'7	370'6	13'6	26'82	.99	
1889-90	12,270	532	1889	49	78	3'60	69,266	1,498'0	481'5	22'9	32'14	1'53	
1890-91	14,046	542	1890	50	80	3'70	67,823	1,520'2	503'5	18'5	33'12	1'22	
1891-92	15,456	529	1891	51	79	3'36	67,030	1,379'1	400'7	20'4	29'06	1'48	
1892-93	15,894	540	1892	51	80	3'29	68,137	1,517'3	409'9	22'1	27'01	1'46	
1893-94	15,090	482	1893	53	79	3'29	70,091	1,414'9	466'0	20'0	32'94	1'41	
1894-95	15,957	517	1894	54	81	...†	71,082	1,508'0	511'4	20'9	33'91	1'38	
1895-96	14,346	654	1895	55	83	...	71,031	1,461'8	522'3	26'3	35'73	1'80	
1896-97	14,805	545	1896	56	82	...	70,484	1,386'7	511'6	25'5	36'89	1'84	

* In ordinary years the departures plus the deaths nearly balance the arrivals. † Return abolished. ‡ On the 1st May of each year.

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TABLE XVI.

RELATION of MORTALITY to AGE and LENGTH of RESIDENCE in INDIA.

A.—AGE.													B.—LENGTH OF RESIDENCE IN INDIA.													
CAUSES OF DEATH.	(a) DIED PER 1,000.						(b) LIABILITY IN PERCENTAGES.						(g) DIED PER 1,000.							(h) LIABILITY IN PERCENTAGES.						
	Under 20.	20—24.	25—29.	30—34.	35—39.	40 and upwards.	Under 20.	20—24.	25—29.	30—34.	35—39.	40 and upwards.	Under 1 year.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.	Under 1 year.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Enteric Fever . . .	4'96	9'52	3'24	2'18	'69	...	24	46	16	11	3	...	14'40	8'59	5'71	4'22	3'18	2'44	1'01	36	22	14	11	8	6	3
Cholera . . .	1'65	'89	'62	'65	...	2'63	26	14	10	10	...	41	1'17	'39	'78	'97	'57	'84	1'01	20	7	14	17	10	15	18
Dysentery . . .	'55	'95	'37	'22	'69	...	20	34	13	8	25	...	1'71	'94	'35	'26	'23	'37	1'01	35	19	7	5	5	8	21
Intermittent and Remittent Fevers . . .	...	'53	'29	1'09	'69	7'89	...	5	3	10	7	75	'18	'47	'69	'44	'45	'66	1'51	4	11	16	10	10	15	34
Alcoholism . . .	...	'06	'04	'44	'69	...	...	5	3	36	56	...	...	...	...	'26	'11	'09	'50	...	...	...	27	11	9	52
Tubercle of the lungs . . .	1'10	'45	'66	1'31	'69	2'63	16	7	10	19	10	38	'18	'70	'69	'70	'68	'56	1'51	4	14	14	14	14	11	30
Nervous Diseases . . .	...	'19	'29	...	'69	...	...	16	25	...	59	...	'09	'23	'35	'18	...	'47	...	7	17	27	14	...	36	...
Circulatory Diseases . . .	'55	'39	'50	'87	2'06	...	13	9	11	20	47	...	'45	'70	'09	'26	'80	'66	1'01	11	18	2	7	20	17	25
Pneumonia . . .	'55	'53	'79	'65	'69	5'26	6	6	9	8	8	62	'09	'86	'78	'53	'45	1'12	1'01	2	18	16	11	9	23	21
Other Respiratory Diseases . . .	...	'08	'17	'22	...	...	...	17	36	47	...	...	...	'23	'09	'09	...	'28	...	...	33	13	13	...	41	...
Abscess of the liver . . .	'55	1'17	1'33	1'74	2'06	...	8	17	19	25	30	...	'90	'94	1'30	1'41	1'70	1'41	1'51	10	10	14	15	19	15	16
Urinary Diseases . . .	...	'19	'04	'65	'69	...	...	12	3	41	44	...	'27	'23	'09	'09	'11	'19	'50	18	16	6	6	7	13	34
Heat-stroke . . .	...	'53	'58	1'96	2'75	5'26	...	5	5	18	25	47	'63	'78	'69	'35	'23	1'31	1'51	11	14	13	6	4	24	27
All Diseases . . .	11'03	16'75	10'21	12'64	13'73	26'32	12	18	11	14	15	29	20'89	16'40	12'97	10'63	9'66	12'09	14'61	21	17	13	11	10	12	15
Suicide . . .	...	'28	'17	'87	1'37	2'63	...	5	3	16	26	49	'09	'16	'26	'44	'45	'28	1'51	3	5	8	14	14	9	47
All Causes, excluding cholera and non-suicidal injury . . .	9'37	16'14	9'75	12'85	15'10	26'32	10	18	11	14	17	29	19'81	16'17	12'45	10'11	9'54	11'53	15'11	21	17	13	11	10	12	16
(c) NUMBER OF DEATHS.						(d) COMPOSITION OF 100 DEATHS AT EACH AGE.						(i) NUMBER OF DEATHS.							(j) COMPOSITION OF 100 DEATHS IN EACH PERIOD OF RESIDENCE.							
Enteric Fever . . .	9	342	78	10	1	...	45	57	32	17	5	...	160	110	66	48	28	26	2	69	52	44	40	33	20	7
Cholera . . .	3	32	15	3	...	1	15	5	6	5	...	10	13	5	9	11	5	9	2	6	2	6	9	6	7	7
Dysentery . . .	1	34	9	1	1	...	5	6	4	2	5	...	19	12	4	3	2	4	2	8	6	3	2	2	3	7
Intermittent and Remittent Fevers . . .	...	19	7	5	1	3	...	3	3	9	5	30	2	6	8	5	4	7	3	1	3	5	4	5	5	10
Alcoholism . . .	...	2	1	2	1	...	...	...	...	3	5	...	...	...	...	3	1	1	1	...	...	...	2	1	1	3
Tubercle of the lungs . . .	2	16	16	6	1	1	10	3	7	10	5	10	2	9	8	8	6	6	3	1	4	5	7	7	5	10
Nervous Diseases . . .	...	7	7	...	1	...	...	1	3	...	5	...	1	3	4	2	...	5	...	...	1	3	2	...	4	...
Circulatory Diseases . . .	1	14	12	4	3	...	5	2	5	7	15	...	5	9	1	3	7	7	2	2	4	1	2	8	5	7
Pneumonia . . .	1	19	19	3	1	2	5	3	8	5	5	20	1	11	9	6	4	12	2	...	5	6	5	5	9	7
Other Respiratory Diseases . . .	...	3	4	1	...	...	...	...	2	2	...	...	...	3	1	1	...	3	...	...	1	1	1	...	2	...
Abscess of the liver . . .	1	42	32	8	3	...	5	7	13	14	15	...	10	12	15	16	15	15	3	4	6	10	13	18	12	10
Urinary Diseases . . .	...	7	1	3	1	...	...	1	...	5	5	...	3	3	1	1	1	2	1	1	1	1	1	1	2	3
Heat-stroke . . .	...	19	14	9	4	2	...	3	6	16	20	20	7	10	8	4	2	14	3	3	5	5	3	2	11	10
All Diseases . . .	20	602	246	58	20	10	100	100	100	100	100	100	232	210	150	121	85	129	29	100	100	100	100	100	100	100
Suicide . . .	...	10	4	4	2	1	...	...	...	...	...	...	1	2	3	5	4	3	3	...	...	...	...	...	...	...
All Causes, excluding cholera and non-suicidal injury . . .	17	580	235	59	22	10	...	...	...	...	...	...	220	207	144	115	84	123	30	...	...	...	...	...	...	...
(e) NUMBER OF DEATHS.						(f) PERCENTAGE AT EACH AGE TO TOTAL NUMBER.						(k) NUMBER OF DEATHS.							(l) PERCENTAGE IN EACH PERIOD OF RESIDENCE TO TOTAL NUMBER.							
Enteric Fever . . .	9	342	78	10	1	...	2	78	18	2	...	...	160	110	66	48	28	26	2	36	25	15	11	6	6	...
Cholera . . .	3	32	15	3	...	1	6	59	28	6	...	2	13	5	9	11	5	9	2	24	9	17	20	9	17	4
Abscess of the liver . . .	1	42	32	8	3	...	1	49	37	9	3	...	10	12	15	16	15	15	3	12	14	17	19	17	17	3
Suicide . . .	...	10	4	4	2	1	...	48	19	19	10	5	1	2	3	5	4	3	3	5	10	14	24	19	14	14
All Causes, excluding cholera and non-suicidal injury . . .	17	580	235	59	22	10	2	63	25	6	2	1	220	207	144	115	84	123	30	24	22	16	12	9	13	3

NOTE.—Marching returns and returns wherein the classification by age and service was omitted have been excluded.

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TABLE XVII.

RELATION of INVALIDING to AGE and LENGTH of RESIDENCE in INDIA.

A.—AGE.													B.—LENGTH OF RESIDENCE IN INDIA.																		
CAUSES OF INVALIDING.	(a) INVALIDED PER 1,000.						(b) LIABILITY IN PERCENTAGES.						(g) INVALIDED PER 1,000.							(h) LIABILITY IN PERCENTAGES.											
	Under 20.	20—24.	25—29.	30—34.	35—39.	40 and upwards.	Under 20.	20—24.	25—29.	30—34.	35—39.	40 and upwards.	Under 1.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.	Under 1.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.					
Dysentery . . .	55	139	116	44	...	...	16	39	33	12	...	...	108	141	112	176	57	122	...	15	20	16	25	8	17	...	
Intermittent and Remittent Fevers	165	198	195	131	343	526	11	13	13	8	22	34	72	250	190	193	273	187	302	5	17	13	13	19	13	21					
Venereal Diseases	55	852	647	240	69	...	3	46	35	13	4	...	423	922	890	685	784	534	151	10	21	20	16	18	12	3					
Debility . . .	110	256	249	349	480	1579	4	8	8	12	16	52	144	406	225	246	227	281	554	7	19	11	12	11	13	27					
Rheumatism . . .	...	64	87	44	...	263	...	14	19	10	...	57	18	62	112	79	68	75	50	4	13	24	17	15	16	11				
Tubercle of the lungs . . .	276	198	241	153	275	...	24	17	21	13	24	...	108	273	259	299	148	197	...	8	21	20	23	12	15	...					
Mental Diseases . . .	...	120	100	131	...	...	...	34	28	37	...	...	153	156	61	97	91	84	50	22	23	9	14	13	12	7
Epilepsy . . .	55	61	33	...	69	...	25	28	15	...	32	...	90	78	35	26	34	09	50	28	24	11	8	11	3	16					
Other Nervous Diseases . . .	...	42	62	109	137	...	...	12	18	31	39	...	36	78	35	44	45	66	151	8	17	8	10	10	15	33		
Eye, ear, and nose Diseases . . .	165	253	71	44	69	...	27	42	12	7	11	...	288	281	182	88	91	56	50	28	27	18	8	9	5	5					
Palpitation . . .	55	117	58	...	...	263	11	24	12	...	...	53	99	164	86	53	11	84	...	20	33	17	11	2	17	...	
Valvular disease of the heart . . .	...	159	71	22	...	263	...	31	14	4	...	51	155	234	78	97	68	19	50	22	33	11	14	10	3	7				
Other Circulatory Diseases . . .	...	36	37	22	69	...	...	22	23	13	42	...	18	31	17	70	45	28	50	7	12	7	27	17	11	19		
Respiratory Diseases . . .	...	53	12	22	...	263	...	15	3	6	...	75	36	23	69	35	34	...	101	12	8	23	12	11	...	34				
Hepatitis and Abscess of the liver . . .	...	92	137	65	...	...	...	31	47	22	...	...	45	164	78	70	102	141	101	6	23	11	10	15	20	14
Locomotive Diseases . . .	165	120	100	22	69	263	22	16	14	3	9	36	117	148	69	97	136	94	...	18	22	10	15	21	14	...					
Injuries . . .	55	125	87	131	69	...	12	27	19	28	15	...	117	141	104	44	114	122	151	15	18	13	6	14	15	19					
All Causes . . .	1488	3293	2543	1852	1784	4474	10	21	16	13	12	29	2395	4014	2853	2733	2590	2418	2217	12	21	15	14	13	13	12					
(c) NUMBER INVALIDED.													(d) COMPOSITION OF 100 INVALIDINGS AT EACH AGE.						(i) NUMBER INVALIDED.							(j) COMPOSITION OF 100 INVALIDINGS IN EACH PERIOD OF RESIDENCE.					
Dysentery . . .	1	50	28	2	...	...	4	4	5	2	...	...	12	18	13	20	5	13	...	5	4	4	6	2	5	...	
Intermittent and Remittent Fevers	3	71	47	6	5	2	11	6	8	7	19	12	8	32	22	22	24	20	6	3	6	7	7	11	8	14					
Venereal Diseases	1	306	156	11	1	...	4	26	25	13	4	...	47	118	103	78	69	57	3	18	23	31	25	30	22	7					
Debility . . .	2	92	60	16	7	6	7	8	10	18	27	35	16	52	26	28	20	30	11	6	10	8	9	9	12	25					
Rheumatism . . .	...	23	21	2	...	1	...	2	3	2	...	6	2	8	13	9	6	8	1	1	2	4	3	3	3	2				
Tubercle of the lungs . . .	5	71	58	7	4	...	19	6	9	8	15	...	12	35	30	34	13	21	...	5	7	9	11	6	8	...					
Mental Diseases . . .	...	43	24	6	...	...	...	4	4	7	...	...	17	20	7	11	8	9	1	6	4	2	4	4	3	2
Epilepsy . . .	1	22	8	...	1	...	4	2	1	...	4	...	10	10	4	3	3	1	1	4	2	1	1	1	...	2					
Other Nervous Diseases . . .	...	15	15	5	2	...	...	1	2	6	8	...	4	10	4	5	4	7	3	2	2	1	2	2	3	7		
Eye, ear, and nose Diseases . . .	3	91	17	2	1	...	11	8	3	2	4	...	32	36	21	10	8	6	1	12	7	6	3	4	2	2					
Palpitation . . .	1	42	14	...	...	1	4	4	2	...	...	6	11	21	10	6	1	9	...	4	4	3	2	...	3	...	
Valvular Disease of the heart . . .	...	57	17	1	...	1	...	5	3	1	...	6	17	30	9	11	6	2	1	6	6	3	4	3	1	2				
Other Circulatory Diseases . . .	...	13	9	1	1	...	...	1	1	1	4	...	2	4	2	8	4	3	1	1	1	1	3	2	1	2		
Respiratory Diseases . . .	...	19	3	1	...	1	...	2	...	1	...	6	4	3	8	4	3	...	2	2	1	2	1	1	...	5				
Hepatitis and Abscess of the liver . . .	...	33	33	3	...	...	...	3	5	4	...	...	5	21	9	8	9	15	2	2	4	3	3	4	6	5
Locomotive Diseases . . .	3	43	24	1	1	1	11	4	4	1	4	6	13	19	8	11	12	10	...	5	4	2	4	5	4	...					
Injuries . . .	1	45	21	6	1	...	4	4	3	7	4	...	13	18	12	5	10	13	3	5	4	4	2	4	5	7					
All Causes . . .	27	1,183	613	85	26	17	100	100	100	100	100	100	266	514	330	311	228	258	44	100	100	100	100	100	100	100					
(e) NUMBER INVALIDED.													(f) PERCENTAGE AT EACH AGE TO TOTAL NUMBER.						(k) NUMBER INVALIDED.							(l) PERCENTAGE IN EACH PERIOD OF RESIDENCE TO TOTAL NUMBER.					
Intermittent and Remittent Fevers	3	71	47	6	5	2	2	53	35	4	4	1	8	32	22	22	24	20	6	6	24	16	16	18	15	4					
Venereal Diseases	1	306	156	11	1	...	...	64	33	2	...	...	47	118	103	78	69	57	3	10	25	22	16	15	12	1	
Debility . . .	2	92	60	16	7	6	1	50	33	9	4	3	16	52	26	28	20	30	11	9	28	14	15	11	16	6					
All Causes . . .	27	1,183	613	85	26	17	1	61	31	4	1	1	266	514	330	311	228	258	44	14	26	17	16	12	13	2					

NOTE.—Marching returns and returns wherein the classification by age and service was omitted have been excluded.

EUROPEAN TROOPS, 1896.

TABLE XVIII.
STATISTICS OF OFFICERS.

A.—SICKNESS and MORTALITY among OFFICERS of the BRITISH ARMY in 1896. (From the medical returns of the army.)

						RATIOS PER 1,000 OF STRENGTH.					ACTUALS.				
						Bengal.	Punjab.	Bombay.	Madras.	India.	Bengal.	Punjab.	Bombay.	Madras.	India.
STRENGTH . . . . .						...	...	...	...	...	644	508	479	368	1,999
INVALIDS						68'3	41'3	66'8	78'8	63'0	44	21	32	29	126
CASES REMAINING FROM 1895						...	...	...	...	...	30	11	11	12	64
ADMISSIONS						1,054'3	752'0	910'2	896'7	914'0	679	382	436	330	1,827
Influenza						55'9	29'5	2'1	51'6	35'5	36	15	1	19	71
Cholera						6'2	...	...	...	2'0	4	...	...	...	4
Small-pox						7'8	7'9	2'1	2'7	5'5	5	4	1	1	11
Enteric Fever						23'3	27'6	54'3	19'0	31'0	15	14	26	7	62
Intermittent Fever						250'0	141'7	171'2	125'0	180'6	161	72	82	46	361
Remittent Fever						32'6	45'3	54'3	29'9	40'5	21	23	26	11	81
Simple Continued Fever						45'0	35'4	58'5	84'2	53'0	29	18	28	31	106
Tubercle of the lungs						1'6	2'0	...	...	1'0	1	1	...	...	2
Pneumonia						3'1	5'9	6'3	2'7	4'5	2	3	3	1	9
Other Respiratory Diseases						37'3	23'6	25'1	27'2	29'0	24	12	12	10	58
Dysentery						27'9	27'6	27'1	54'3	32'5	18	14	13	20	65
Diarrhœa						48'1	25'6	33'4	24'5	34'5	31	13	16	9	69
Hepatic Abscess						3'1	2'0	2'1	2'7	2'5	2	1	1	1	5
,, Congestion and Inflammation						26'4	13'8	29'2	35'3	25'5	17	7	14	13	51
Venereal Diseases						15'5	9'8	23'0	16'3	16'0	10	5	11	6	32
TOTAL DEATHS						12'42	15'75	22'96	10'87	15'51	8	8	11	4	31
Cholera						4'66	...	...	...	1'50	3	...	...	...	3
Small-pox . . . . .						...	...	...	...	...	...	...	...	...	...
Enteric Fever						6'21	3'94	8'35	8'15	6'50	4	2	4	3	13
Intermittent Fever . . . . .						...	...	...	...	...	...	...	...	...	...
Remittent Fever . . . . .						...	...	2'09	...	'50	...	...	1	...	1
Simple Continued Fever . . . . .						...	...	...	...	...	...	...	...	...	...
Heat-stroke . . . . .						...	...	...	...	...	...	...	...	...	...
Circulatory Diseases . . . . .						...	1'97	2'09	...	1'00	...	1	1	...	32
Tubercle of the lungs . . . . .						...	...	...	...	...	...	...	...	...	...
Pneumonia . . . . .						...	1'97	6'26	...	2'00	...	1	3	...	4
Other Respiratory Diseases . . . . .						...	...	...	...	...	...	...	...	...	...
Dysentery . . . . .						...	...	...	...	...	...	...	...	...	...
Diarrhœa . . . . .						...	...	...	...	...	...	...	...	...	...
Hepatic Abscess						1'55	1'97	2'09	2'72	2'00	1	1	1	1	4
DEATHS OUT OF HOSPITAL						1'55	3'94	2'09	...	2'00	1	2	1	...	84

B.—CAUSES of DEATH among OFFICERS of the BRITISH and INDIAN ARMIES in 1896.

ARMIES.	Strength in India, whether on leave or not, on the 1st of July.	Strength in Europe or beyond sea on 1st July 1896, whether on furlough or sick leave.	IN INDIA.															Deaths in England and other countries.	Deaths at sea.	GRAND TOTAL.	Ratio per 1,000.
			Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	TOTAL.				
BRITISH .	2,464	568	3	...	14	1	1	...	...	3	...	4	...	...	...	4	35*	8	...	43	14'18
INDIAN .	2,645	608	1	1	5	...	...	...	1	2	...	2	...	...	...	1	27	7	1	35	10'76

* Including 4 deaths ; one in Kashmir, one in Chitral, one in Fort Sandeman and one in Simla.

TABLE XVIII—*continued.*

STATISTICS OF OFFICERS.

C.—CHOLERA by months, stations, groups and commands.

STATIONS.*	Average annual strength.	NUMBER OF ADMISSIONS FROM CHOLERA IN EACH MONTH.												Total admissions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Benares	8	...	...	1	...	...	...	...	...	...	...	...	...	1	125'0	1	125'00
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR . . .	203	...	...	1	...	...	...	...	...	...	...	...	...	1	4'9	1	4'93
Saugor	10	...	...	...	...	...	...	2	...	...	...	...	...	2	200'0	1	100'00
GROUP IX.—DECCAN . . .	284	...	...	...	...	...	...	2	...	...	...	...	...	2	7'0	1	3'52
Naini Tal	12	...	...	...	...	...	...	...	1	...	...	...	...	1	83'3	1	83'33
GROUP XII(b).—HILL CON- VALESCENT DEPÔTS AND SANITARIA	135	...	...	...	...	...	...	...	1	...	...	...	...	1	7'4	1	7'41
INDIA	1,999	...	...	1	...	...	...	2	1	...	...	...	...	4	2'0	3	1'50
BENGAL	644	...	...	1	...	...	...	2	1	...	...	...	...	4	6'2	3	4'66
PUNJAB	508	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
MADRAS	368	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BOMBAY	479	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Stations where cholera did not occur are not shown in this table.

D.—ENTERIC FEVER by months, stations, groups and commands.

STATIONS.*	Average annual strength.	NUMBER OF ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												Total admissions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Rangoon	33	...	...	...	...	...	...	...	...	...	1	...	...	1	30'3	...	...
GROUP I.—BURMA COAST AND BAY ISLANDS	35	...	...	...	...	...	...	...	...	...	1	...	...	1	27'8	...	...
Bhamo	4	1	...	...	...	...	...	...	...	...	...	...	...	1	250'0	1	250'00
GROUP II.—BURMA INLAND	61	1	...	...	...	...	...	...	...	...	...	...	...	1	16'4	1	16'39
Lucknow	64	...	...	...	...	...	...	...	1	...	...	...	...	1	15'6	1	15'62
Cawnpore	31	...	...	...	...	...	...	...	1	...	...	...	...	1	32'3	...	...
Allahabad	32	...	1	...	...	...	...	...	...	...	...	...	...	1	31'2	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	203	...	1	...	...	...	...	...	2	...	...	...	...	3	14'8	1	4'93
Shahjahanpur	11	...	...	...	...	...	1	...	...	...	...	...	...	1	90'9	...	...
Bareilly	34	...	...	...	...	...	...	...	...	...	...	...	1	1	29'4	...	...
Meerut	57	...	...	...	...	...	...	...	...	...	...	...	3	3	52'6	...	...
Umballa	56	...	...	...	...	...	1	...	...	...	...	...	...	1	17'9	1	17'86
Jullundur	17	...	...	...	...	...	...	...	...	...	...	...	1	1	58'8	...	...
Ferozepore	26	...	...	...	...	...	...	...	...	...	...	1	...	1	38'5	...	...
Sialkot	38	...	...	...	...	...	...	...	...	...	...	...	1	1	26'3	...	...
Rawalpindi	89	...	...	...	1	...	...	...	...	...	...	1	...	2	22'5	...	...
GROUP VI.—UPPER SUB-HIMALAYAN	395	...	...	...	1	...	2	...	...	...	...	2	6	11	27'8	1	2'53
Nowshera	11	...	1	...	1	...	...	...	...	...	...	...	...	2	181'8	...	...
Peshawar	43	...	...	...	1	...	...	...	...	...	...	...	1	2	46'5	1	23'26
Hyderabad	8	...	...	...	...	...	...	...	...	...	...	1	...	1	125'0	...	...
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	122	...	1	...	2	...	...	...	...	...	...	1	1	5	41'0	1	8 20
Jhansi	28	...	...	...	...	...	...	...	...	...	...	...	2	2	71'4	2	71'43
Agra	24	...	...	...	1	...	...	...	...	...	...	...	1	2	83'3	...	...
Muttra	19	...	...	...	...	1	...	...	...	...	...	...	...	1	52'6	...	...
Nasirabad	19	...	...	1	...	...	...	...	...	...	...	...	...	1	52'6	...	...
Neemuch	9	...	...	...	...	...	...	...	...	...	...	...	1	1	111'1	...	...
Mhow	63	...	2	...	...	...	...	...	...	...	...	...	...	2	31'7	...	...
GROUP VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA, AND GUJARAT	188	...	2	1	1	1	...	...	...	...	...	...	4	9	47'9	2	10'64

* Stations where Enteric Fever did not occur are not shown in this table.

EUROPEAN TROOPS, 1896.

TABLE XVIII—concluded.

STATISTICS OF OFFICERS.

D.—ENTERIC FEVER by months, stations, groups, and commands.

STATIONS.	Average annual strength.	NUMBER OF ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												Total admissions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Poona	57	1	..	1	2	..	1	1	..	..	..	..	..	6	105'3	3	52'63
Kirkee	37	..	..	..	..	..	1	..	..	..	2	..	..	3	81'1	..	..
Kamptee	25	..	..	..	..	..	..	..	1	..	..	..	..	1	40'0	..	..
Secunderabad	70	..	..	1	..	..	..	..	..	..	..	..	..	1	14'3	..	..
GROUP IX.—DECCAN . . .	284	1	..	2	2	..	2	1	1	..	2	..	..	11	38'7	3	10'56
Bangalore	59	..	..	..	..	..	..	2	..	..	..	..	..	2	33'9	1	16'95
GROUP XI.—SOUTHERN INDIA.	111	..	..	..	..	..	..	2	..	..	..	..	..	2	18'0	1	9'01
Ranikhet	34	..	..	..	..	..	1	..	1	..	..	..	..	2	58'8	1	29'41
Dagshai	17	..	..	..	..	..	..	..	1	..	..	..	..	1	58'8	..	..
Cherat	10	..	..	..	..	..	..	..	..	1	..	..	..	1	100'0	..	..
Quetta	60	..	..	..	..	..	1	2	1	1	3	..	..	8	133'3	1	16'67
GROUP XII (a).—Hill Stations . . .	238	..	..	..	..	..	2	2	3	2	3	..	..	12	50'4	2	8'40
Dalhousie	16	..	..	..	1	..	..	..	..	..	..	..	..	1	62'5	..	..
Murree	11	..	..	..	..	..	..	1	..	..	..	..	..	1	90'9	..	..
Khandalla	2	..	..	..	1	..	..	..	..	..	..	..	..	1	500'0	..	..
Wellington	34	..	..	..	..	..	1	1	..	..	..	..	..	2	58'8	1	29'41
GROUP XII (b).—Hill Convalescent Depôts and Sanitaria.	135	..	..	..	2	..	1	2	..	..	..	..	..	5	37'0	1	7'41
Deolali Depôt	25	..	..	..	..	..	..	1	..	..	..	..	..	1	40'0	..	..
Aden	42	..	..	..	..	..	..	..	1	..	..	..	..	1	23'8	..	..
INDIA	1,999	2	4	3	8	1	7	8	7	2	6	3	11	62	31'0	13	6'50
BENGAL	644	..	1	..	1	1	2	..	3	..	..	..	7	15	23'3	4	6'21
PUNJAB	508	..	1	..	4	..	1	1	1	1	..	2	3	14	27'6	2	3'94
MADRAS	368	1	..	1	..	..	1	3	..	..	1	..	..	7	19'0	3	8'15
BOMBAY	479	1	2	2	3	..	3	4	3	1	5	1	1	26	54'3	4	8'35

B. WOMEN.

TABLE XIX.

RATIOS AND ACTUALS OF COMMANDS.

	Bengal Command.		Punjab Command.		Madras Command.		Bombay Command.		India.*		
Strength	996		759		748		751		3,254		
	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Remaining from 1895.
Constantly sick	39'9	39'71	30'2	22'94	47'4	35'48	31'3	23'53	37'4	121'66	
ADMISSIONS:—											
Influenza	7'0	7	2'6	2	26'7	20	1'3	1	9'2	30	...
Cholera . . . . .	...	...	...	...	...	...	...	...	...	...	...
Small-pox	19'1	19	25'0	19	12'0	9	8'0	6	16'3	53	4
Enteric Fever	10'0	10	10'5	8	4'0	3	8'0	6	8'3	27	7
Intermittent Fever	150'1	150	84'3	64	73'5	55	190'4	143	126'6	412	9
Remittent Fever	10'0	10	10'5	8	2'7	2	18'6	14	10'4	34	2
Simple Continued Fever	23'1	23	6'6	5	33'4	25	9'3	7	18'4	60	...
Tubercle of the lungs . . . . .	...	...	...	...	8'0	6	12'0	9	4'6	15	3
Pneumonia	2'0	2	1'3	1	...	...	5'3	4	2'2	7	2
Other Respiratory Diseases	27'1	27	18'4	14	33'4	25	21'3	16	25'2	82	8
Dysentery	19'1	19	9'2	7	26'7	20	17'3	13	18'1	59	3
Diarrhœa	34'1	34	11'9	9	9'4	7	10'7	8	17'8	58	1
Anæmia and Debility	326'3	325	237'1	180	260'7	195	275'6	207	278'7	907	22
Abortion and Puerperal Affections	26'1	26	43'5	33	33'4	25	39'9	30	35'0	114	1
Other diseases peculiar to women	58'2	58	59'3	45	72'2	54	37'3	28	56'9	185	11
ALL CAUSES	921'7	918	639'0	485	810'2	606	821'6	617	807'0	2,626	97
DEATHS:—											
Cholera . . . . .	...	...	...	...	...	...	...	...	...	...	Deaths out of Hospital.
Small-pox	1'00	1	1'32	1	...	...	...	...	6'1	2	...
Enteric Fever	5'02	5	3'95	3	1'34	1	2'66	2	3'38	11	...
Intermittent Fever . . . . .	...	...	...	...	...	...	1'33	1	3'1	1	...
Remittent Fever	1'00	1	...	...	1'34	1	...	...	6'1	2	...
Simple Continued Fever . . . . .	...	...	...	...	...	...	...	...	...	...	...
Tubercle of the lungs . . . . .	...	...	...	...	...	...	5'33	4	1'23	4	...
Pneumonia	1'00	1	...	...	...	...	1'33	1	6'1	2	...
Other Respiratory Diseases	1'00	1	...	...	...	...	...	...	3'1	1	...
Dysentery . . . . .	...	...	...	...	1'34	1	...	...	3'1	1	...
Diarrhœa	1'00	1	...	...	...	...	...	...	3'1	1	...
Hepatic Abscess	1'00	1	...	...	...	...	...	...	3'1	1	...
Childbirth and Abortion	1'00	1	3'95	3	...	...	1'33	1	1'54	5	...
ALL CAUSES	22'09	22	18'45	14	12'03	9	19'97	15	18'44	60	2
PERCENTAGE IN 100 ADMISSIONS:—											
Influenza	76		41		330		16		114		
Cholera . . . . .	...		...		...		...		...
Small-pox	2'07		3'92		1'49		97		2'02		
Enteric Fever	1'09		1'65		50		97		1'03		
Intermittent Fever	16'34		13'20		9'08		23'18		15'69		
Remittent Fever	1'09		1'65		33		2'27		1'29		
Simple Continued Fever	2'51		1'03		4'13		1'13		2'28		
Tubercle of the lungs . . . . .	...		...		99		1'46		57		
Pneumonia	22		21		...		65		27		
Other Respiratory Diseases	2'94		2'89		4'13		2'59		3'12		
Dysentery	2'07		1'44		3'30		2'11		2'25		
Diarrhœa	3'70		1'86		1'16		1'30		2'21		
Anæmia and Debility	35'40		37'11		32'18		33'55		34'54		
Abortion and Puerperal Affections	2'83		6'80		4'13		4'86		4'34		
Other diseases peculiar to women	6'32		9'28		8'91		4'54		7'04		
PERCENTAGE IN 100 DEATHS:—											
Cholera . . . . .	...		...		...		...		...
Small-pox	4'5		7'1		...		...		3'3		
Enteric Fever	22'7		21'4		11'1		13'3		18'3		
Intermittent Fever . . . . .	...		...		...		6'7		1'7		
Remittent Fever	4'5		...		11'1		...		3'3		
Simple Continued Fever . . . . .	...		...		...		...		...
Tubercle of the lungs . . . . .	...		...		...		26'7		6'7		
Pneumonia	4'5		...		...		6'7		3'3		
Other Respiratory Diseases	4'5		...		...		...		1'7		
Dysentery . . . . .	...		...		11'1		...		1'7		
Diarrhœa	4'5		...		...		...		1'7		
Hepatic Abscess	4'5		...		...		...		1'7		
Childbirth and Abortion	4'5		21'4		...		6'7		8'3		

* For complete detail of diseases see Table LIII.

TABLE XX.

CHOLERA by months, stations, groups and commands.

STATIONS.	Average annual strength.	NUMBER OF ADMISSIONS FROM CHOLERA IN EACH MONTH.												Total ad- missions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
INDIA	• 3,254	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BENGAL	• 996	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PUNJAB	• 759	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
MADRAS	• 748	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BOMBAY	• 751	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

NOTE.—No case of Cholera occurred.

TABLE XXI.

ENTERIC FEVER by months, stations, groups and commands.

STATIONS.*	Average annual strength.	NUMBER OF ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												Total admissions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Shwebo	27	...	...	...	...	...	...	1	...	...	...	...	...	1	37'0	...	...
GROUP II.—BURMA INLAND .	96	...	...	...	...	...	...	1	...	...	...	...	...	1	10'4	...	...
Barrackpore	35	...	...	...	1	...	...	...	...	...	...	...	...	1	28'6	...	...
GROUP IV.—BENGAL AND ORISSA .	161	...	...	...	1	...	...	...	...	...	...	...	...	1	6'2	...	...
Lucknow	77	1	...	...	...	...	...	...	...	...	...	1	...	2	26'0	1	12'99
Allahabad	46	...	...	1	...	...	...	...	...	...	...	...	...	1	21'7	1	21'74
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR .	286	1	...	1	...	...	...	...	...	...	...	1	...	3	10'5	2	6'99
Meerut	91	1	...	...	...	...	...	...	...	...	...	...	1	2	22'0	1	10'99
Sialkot	49	...	...	...	...	...	...	...	...	...	...	...	1	1	20'4	...	...
Rawalpindi	139	...	...	1	1	1	...	...	...	...	...	...	...	3	21'6	3	21'58
Campbellpur	11	...	...	...	...	...	...	...	...	...	...	...	1	1	90'9	...	...
GROUP VI.—UPPER SUB-HIMALAYAN .	599	1	...	1	1	1	...	...	...	...	...	...	3	7	11'7	4	6'68
Peshawar	45	1	...	...	...	...	...	...	...	...	...	1	...	2	44'4	...	...
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA .	193	1	...	...	...	...	...	...	...	...	...	1	...	2	10'4	...	...
Muttra	28	...	...	...	...	...	...	...	...	...	1	...	...	1	35'7	1	35'71
Mhow	117	...	...	...	...	...	2	1	...	1	...	1	...	5	42'7	2	17'09
GROUP VIII.—S. E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT .	306	...	...	...	...	...	2	1	...	1	1	1	...	6	19'6	3	9'80
Jubbulpore	31	...	...	...	1	...	1	...	...	...	...	...	...	2	64'5	1	32'26
Secunderabad	161	...	...	1	...	...	...	1	...	...	...	...	...	2	12'4	1	6'21
GROUP IX.—DECCAN .	474	...	...	1	1	...	1	1	...	...	...	...	...	4	8'4	2	4'22
Ranikhet	52	...	...	1	...	...	...	...	...	...	...	...	...	1	19'2	...	...
Cherat	36	...	...	...	...	...	1	...	...	...	...	...	...	1	27'8	...	...
Quetta	70	...	...	...	...	...	...	...	...	...	1	...	...	1	14'3	...	...
GROUP XIIa.—HILL STATIONS	330	...	...	1	...	...	1	...	...	...	1	...	...	3	9'1	...	...
INDIA .	3,254	3	...	4	3	1	4	3	...	1	2	3	3	27	8'3	11	3'38
BENGAL	996	2	...	2	2	...	1	...	...	...	1	1	1	10	10'0	5	5'02
PUNJAB	759	1	...	1	1	1	1	...	...	...	...	1	2	8	10'5	3	3'95
MADRAS	748	...	...	1	...	...	...	2	...	...	...	...	...	3	4'0	1	1'34
BOMBAY	751	...	...	...	...	...	2	1	...	1	1	1	...	6	8'0	2	2'66

* Stations where Enteric Fever did not occur are not shown in this table.

C. CHILDREN.

TABLE XXII.

RATIOS AND ACTUALS OF COMMANDS.

	Bengal Command.		Punjab Command.		Madras Command.		Bombay Command.		India.*		
Strength	1,723		1,339		1,409		1,319		5,790		
	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Remaining from 1895.
Constantly sick	29'2	50'29	19'6	26'28	30'9	43'60	18'1	23'84	24'9	144'01	
ADMISSIONS :—											
Influenza	4'1	7	...	...	2'1	3	...	...	1'7	10	...
Cholera . . . . .	...	...	...	...	...	...	...	...	...	...	...
Small-pox	3'5	6	5'2	7	2'8	4	1'5	2	3'3	19	...
Measles	48'2	83	36'6	49	63'9	90	13'6	18	41'5	240	2
Whooping Cough	9'3	16	7	1	9'9	14	9'9	13	7'6	44	...
Enteric Fever	8'1	14	9'0	12	5'7	8	2'3	3	6'4	37	2
Intermittent Fever	100'4	173	41'8	56	61'0	86	165'3	218	92'1	533	10
Remittent Fever	13'9	24	11'9	16	1'4	2	10'6	14	9'7	56	...
Simple Continued Fever	35'4	61	13'4	18	44'0	62	15'9	21	28'0	162	3
Tuberculous Diseases	2'3	4	7	1	5'7	8	1'5	2	2'6	15	2
Respiratory Diseases	86'5	149	52'3	70	104'3	147	58'4	77	76'5	443	9
Dysentery	19'2	33	5'2	7	18'5	26	8'3	11	13'3	77	4
Diarrhœa	58'6	101	38'8	52	25'6	36	35'6	47	40'8	236	4
Eye Diseases	31'3	54	12'7	17	39'0	55	31'1	41	28'8	167	1
ALL CAUSES	662'2	1,141	389'8	522	659'3	929	552'7	729	573'6	3,321	62
DEATHS :—											
Cholera . . . . .	...	...	...	...	...	...	...	...	...	...	Deaths out of hospital.
Small-pox . . . . .	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	58	1	1'49	2	71	1	...	...	52	3	...
Enteric Fever	58	1	75	1	71	1	1'52	2	86	5	...
Intermittent Fever	58	1	...	...	2'84	4	...	...	86	5	...
Remittent Fever	58	1	...	...	71	1	3'79	5	1'21	7	...
Simple Continued Fever	1'74	3	2'24	3	...	...	3'03	4	1'73	10	1
Tuberculous Diseases	1'16	2	...	...	71	1	76	1	69	4	...
Convulsions	1'16	2	75	1	1'42	2	76	1	1'04	6	...
Respiratory Diseases	5'80	10	8'22	11	7'10	10	4'55	6	6'39	37	3
Teething	2'32	4	5'23	7	2'84	4	5'31	7	3'80	22	2
Dysentery	5'22	9	3'73	5	9'94	14	2'27	3	5'35	31	2
Diarrhœa	3'48	6	1'49	2	2'13	3	76	1	2'07	12	...
Anæmia, Debility, and Immaturity	8'13	14	3'73	5	1'42	2	8'34	11	5'53	32	2
ALL CAUSES	2'90	5	11'20	15	6'39	9	5'31	7	6'22	36	2
PERCENTAGE IN 100 ADMISSIONS :—											
Influenza	61	...	...	...	32	...	...	...	30	...	...
Cholera . . . . .	...	...	...	...	...	...	...	...	...	...	...
Small-pox	53	1'34	9'39	...	43	...	27	...	57	...	...
Measles	7'27	19	19	...	69	...	47	...	23	...	...
Whooping Cough	1'40	2'30	2'30	...	51	...	78	...	32	...	...
Enteric Fever	1'23	2'30	2'30	...	86	...	41	...	11	...	...
Intermittent Fever	15'16	10'73	10'73	...	26	...	90	...	05	...	...
Remittent Fever	2'10	3'07	3'07	...	22	...	92	...	69	...	...
Simple Continued Fever	5'35	3'45	3'45	...	67	...	88	...	88	...	...
Tuberculous Diseases	35	19	19	...	86	...	27	...	45	...	...
Respiratory Diseases	13'06	13'41	13'41	...	82	...	56	...	34	...	...
Dysentery	2'89	1'34	1'34	...	80	...	51	...	32	...	...
Diarrhœa	8'85	9'96	9'96	...	88	...	45	...	11	...	...
Eye Diseases	4'73	3'26	3'26	...	92	...	62	...	03	...	...
PERCENTAGE IN 100 DEATHS :—											
Cholera . . . . .	...	...	...	...	...	...	...	...	...	...	...
Small-pox . . . . .	...	3'3	1'6	...	1'5	...	...	...	1'1	...	...
Diphtheria and Croup	1'4	1'6	1'6	...	1'5	...	3'2	...	1'9	...	...
Enteric Fever	1'4	...	...	...	6'0	...	...	...	1'9	...	...
Intermittent Fever	1'4	...	...	...	1'5	...	8'1	...	2'7	...	...
Remittent Fever	4'1	4'9	4'9	...	...	...	6'5	...	3'8	...	...
Simple Continued Fever	2'7	...	...	...	1'5	...	1'6	...	1'5	...	...
Tuberculous Diseases	2'7	1'6	1'6	...	3'0	...	1'6	...	2'3	...	...
Convulsions	13'5	18'0	18'0	...	14'9	...	9'7	...	14'0	...	...
Respiratory Diseases	5'4	11'5	11'5	...	6'0	...	11'3	...	8'3	...	...
Teething	12'2	8'2	8'2	...	20'9	...	4'8	...	11'7	...	...
Dysentery	8'1	3'3	3'3	...	4'5	...	1'6	...	4'5	...	...
Diarrhœa	18'9	8'2	8'2	...	3'0	...	17'7	...	12'1	...	...
Anæmia, Debility, and Immaturity	6'8	24'6	24'6	...	13'4	...	11'3	...	13'6	...	...

* For complete detail of diseases see Table LIII.

TABLE XXIII.

CHOLERA by months, stations, groups and commands.

STATIONS.	Average annual strength.	NUMBER OF ADMISSIONS FROM CHOLERA IN EACH MONTH.												Total ad- missions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.				
INDIA .	5,790	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BENGAL	1,723	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PUNJAB	1,339	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
MADRAS	1,409	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BOMBAY	1,319	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

NOTE.—No case of Cholera occurred.

TABLE XXIV.

ENTERIC FEVER by months, stations, groups and commands.

STATIONS.*	Average annual strength.	NUMBER OF ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												Total admissions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.				
Shwebo	42	...	...	...	...	...	...	1	...	...	...	...	...	1	23'8	...	...
GROUP II.—BURMA INLAND .	164	...	...	...	...	...	...	1	...	...	...	...	...	1	6'1	...	...
Dum Dum	94	...	...	...	...	...	...	...	...	...	...	1	...	1	10'6	...	...
GROUP IV.—BENGAL AND ORISSA.	247	...	...	...	...	...	...	...	...	...	...	1	...	1	4'0	...	...
Benares	39	...	...	1	1	...	...	1	1	...	...	...	...	4	102'6	...	...
Allahabad	94	...	...	2	...	...	...	...	...	...	...	...	...	2	21'3	1	10'64
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	500	...	...	3	1	...	...	1	1	...	...	...	...	6	12'0	1	2'00
Umballa	117	...	...	1	...	...	...	...	...	...	...	...	...	1	8'5	...	...
Sialkot	84	...	...	...	...	1	...	...	...	...	...	...	...	1	11'9	...	...
Rawalpindi	213	...	...	...	...	...	1	...	...	1	...	...	...	2	9'4	...	...
GROUP VI.—UPPER SUB-HIMALAYAN.	991	...	...	1	...	1	1	...	...	1	...	...	...	4	4'0	...	...
Nowshera	18	...	...	...	...	...	...	...	...	...	...	...	1	1	55'6	...	...
Peshawar	72	...	...	...	...	...	...	...	...	...	...	1	...	1	13'9	...	...
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA.	323	...	...	...	...	...	...	...	...	...	...	1	1	2	6'2	...	...
Agra	65	...	...	...	...	1	...	1	...	1	1	1	1	6	92'3	...	...
Mhow	177	...	...	...	...	...	...	...	...	...	1	...	...	1	5'6	...	...
Deesa	14	...	...	...	...	...	...	...	...	...	...	...	1	1	71'4	...	...
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	473	...	...	...	...	1	...	1	...	1	2	1	2	8	16'9	...	...
Secunderabad	349	1	1	2	...	...	...	...	...	...	...	...	...	4	11'5	2	5'73
GROUP IX.—DECCAN .	953	1	1	2	...	...	...	...	...	...	...	...	...	4	4'2	2	2'10
Bangalore	241	...	...	...	...	...	...	...	...	2	...	...	1	3	12'4	2	8'30
GROUP XI.—SOUTHERN INDIA.	536	...	...	...	...	...	...	...	...	2	...	...	1	3	5'6	2	3'73
Chakrata	34	...	...	...	...	1	...	...	...	...	...	...	...	1	29'4	...	...
Cherat	53	...	...	...	...	2	...	...	1	2	...	...	...	5	94'3	...	...
Quetta	121	...	...	...	...	...	1	...	...	...	...	...	...	1	8'3	...	...
GROUP XIIa.—HILL STATIONS .	608	...	...	...	...	3	1	...	1	2	...	...	...	7	11'5	...	...
Kasauli	76	...	...	...	...	1	...	...	...	...	...	...	...	1	13'2	...	...
GROUP XIIb.—HILL CONVALESCENT DEPÔTS AND SANITARIA.	469	...	...	...	...	1	...	...	...	...	...	...	...	1	2'1	...	...
INDIA .	5,790	1	1	6	1	6	2	3	2	6	2	3	4	37	6'4	5	'86
BENGAL	1,723	...	...	3	1	2	...	2	1	1	1	2	1	14	8'1	1	'58
PUNJAB	1,339	...	...	1	...	4	1	...	1	3	...	1	1	12	9'0	...	...
MADRAS	1,409	1	1	2	...	...	...	1	...	2	...	...	1	8	5'7	4	2'84
BOMBAY	1,319	...	...	...	...	...	1	...	...	...	1	...	1	3	2'3	...	...

* Stations where Enteric Fever did not occur are not shown in this table.

TABLE XXV.

DEATHS OF CHILDREN BY AGES AND CAUSES.

AGE AT DEATH.	Cholera.	Small-pox.	Diphtheria and Croup.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tuberculous Diseases.	Convulsions.	Respiratory Diseases.	Teething.	Dysentery.	Diarrhœa.	Anæmia, Debility and Immaturity at birth.	ALL CAUSES.	Strength on 1st July 1896.	Deaths per 1,000 of strength. (a)	Liability.
Under 6 months	1	...	...	3	4	2	2	26	8	6	...	19	32§	122	362	337·02	51·18
Between 6 and 12 months	3	1	2	7	8	16†	4	6	2	59	482	122·41	18·59
„ 12 and 18 „	2	1	...	2	3	3	9‡	3	6	...	38	425	89·41	13·58
„ 18 and 24 „	1	...	...	...	...	...	...	...	2	...	1	...	...	5	401	12·47	1·89
„ 2 years and 3 years	2*	...	1	...	1	...	1	1	...	...	...	1	12	652	18·40	2·79
„ 3 „ and 4 „	2*	1	1	1	...	...	...	...	...	2	1	...	12	572	20·98	3·19
„ 4 „ and 5 „	1	...	1	...	...	...	...	...	...	...	...	2	526	3·80	·58
„ 5 „ and 6 „	1	...	...	1	437	2·29	·35
„ 6 „ and 7 „	1	...	...	...	...	...	...	...	1	...	...	3	395	7·59	1·15
„ 7 „ and 8 „	1	1	...	...	...	...	...	...	...	...	...	...	...	2	325	6·15	·93
„ 8 „ and 9 „	1	...	...	...	...	...	...	...	...	...	1	4	261	15·33	2·33
„ 9 „ and 10 „	1	217	4·61	·70
„ 10 „ and 11 „	2	180	11·11	1·69
„ 11 „ and 12 „	1	...	...	...	...	...	...	...	...	...	...	1	144	6·94	1·05
„ 12 „ and 13 „	140	...	...
„ 13 „ and 14 „	96	...	...
„ 14 „ and 15 „	70	...	...
15 and upwards	80	...	...
TOTAL	3	5	5	7	10	4	6	37	22	31	12	32	36	264	5,765	45·79	1·09

* One croup.

† Six with convulsions.

‡ One with convulsions.

§ Twenty-three Immaturity at birth.

(a) On the supposition that the strength on 1st July represents the average annual strength.

II.--NATIVE TROOPS, 1896.

TABLE H.

STATIONS by COMMANDS.

BENGAL COMMAND :—

Silchar.
Dibrugarh.
Kohima.
Manipur.
Fort William.
Alipore and Ballygunge.
Dum-Dum.
Barrackpore.
Buxa.
Cuttack.
Doranda.
Dinapore.
Benares.
Fyzabad.
Lucknow.
Fatehgarh.
Cawnpore.
Allahabad.
Bareilly.
Dehra Dun.
Roorkee.
Meerut.
Delhi.
Agra.
Jhansi.
Nowgong.
Jubbulpore.
Saugor.
Sutna.
Darjeeling.
Gantak.
Almora.
Naini Tal.
Ranikhet.
Lansdowne.
Shillong and outposts.

PUNJAB COMMAND :—

Umballa.
Ludhiana.
Jullundur.
Ferozepore.
Sialkot.
Amritsar.
Meean Meer.
Jhelum.
Rawalpindi.
Attock.
Mooltan.
Nowshera.
Peshawar.
Jamrud.
Mardan.
Kohat and outposts.
Edwardesabad „
Jandola.
Khajuri Kach.
Dera Ismail Khan and outposts.
Dera Ghazi Khan „
Simla.
Jutogh.
Dharmasala.
Kangra.
Bakloh.
Murree.
Khyragully.

PUNJAB COMMAND—contd.

Baragully.
Kalabagh.
Gilgit.
Abbottabad.
Cherat.
Kurram.
Sarwekai.
Wana.
Tochi Column.
Chitral.
Malakand.

MADRAS COMMAND :—

Port Blair.
Moulmein.
Rangoon.
Thayetmyo.
Meiktila.
Mindat-Sakan.
Myingyan.
Pagan.
Kan.
Haka.
Falam.
Kalemyo.
Kalewa.
Kyaukmyaung.
Bhamo.
Thabeitkyin.
Shwebo.
Fort Dufferin.
Loikaw.
Fort Stedman.
Bampon.
Thamakan.
Toungyi.
Keng Tung.
Mong Hsing.
Belgam.
Secunderabad.
Cannanore.
Trichoor.
Quilon.
Trivandrum.
Bangalore.
Bellary.
Trichinopoly.
Madras.
St. Thomas' Mount.
Vizianagram.
Berhampur.
Ootacamund.
Maymyo.

BOMBAY COMMAND :—

Sibi.
Jacobabad.
Hyderabad.
Kurrachee.
Nasirabad.
Neemuch.

BOMBAY COMMAND—contd.

Indore.
Mhow.
Sadra.
Deesa.
Ahmedabad.
Rajkot.
Bhuj.
Baroda.
Surat.
Nasik.
Sambalpur.
Kamptee.
Sitabaldi.
Raipur.
Asirgarh.
Malegaon.
Ahmednagar.
Sirur.
Poona.
Kirkee.
Satara.
Tiana.
Bombay.
Butcher's Island.
Quetta.
Loralai.
Peshin.
Chaman.
Fort Sandeman.
Aden.
Persian Gulf.

CENTRAL INDIA AND RAJPUTANA

CORPS :—

Bikanir.
Mount Abu.
Sehore and outposts.
Agar.
Goonna.
Sirdarpore.
Barwani.
Jhabwa.
Alirajpore.
Kherwara.
Oodeypore.
Kotra.
Erinpura.
Deoli.
Jeypore.
Jhalawar.
Ajmere.
Beawar.
Sambhar.

HYDERABAD CONTINGENT :—

Ellichpur.
Aurangabad.
Jalna.
Hingoli.
Mominabad.
Bolarum.
Raichur.

TABLE XXVI.

RATIOS of COMMANDS.

The ratios of admissions and deaths to strength are taken from Table XXVIII. The actuals will be found in Table XXIX.

	RATIO PER 1,000 OF THE AVERAGE STRENGTH.						
	Bengal Command.	Punjab Command.	Madras Command.	Bombay Command.	Central India and Rajputana Corps.	Hyderabad Contingent.	Army of India.*
I.—AVERAGE ANNUAL STRENGTH	26,279	38,824	25,009	24,707	5,062	6,970	128,286
II.—CONSTANTLY SICK-RATE OF EACH MONTH—							
January	30'9	36'5	28'9	29'1	29'7	23'6	31'4
February	28'4	27'3	28'3	27'5	21'7	20'8	27'1
March	27'4	23'1	27'7	25'0	19'0	19'5	24'8
April	30'8	22'8	28'5	29'3	18'7	21'4	26'5
May	29'5	23'5	28'8	26'1	13'9	17'1	25'6
June	27'9	25'7	30'1	26'2	15'5	13'7	26'1
July	31'2	31'5	33'8	28'5	15'0	17'8	29'8
August	31'1	34'9	38'5	29'7	20'2	17'9	32'1
September	33'3	33'5	37'1	30'5	22'2	20'8	32'4
October	31'6	31'8	32'8	30'2	26'9	21'2	31'2
November	33'5	30'2	30'4	29'0	21'7	18'4	29'7
December	32'1	26'5	28'3	26'0	17'9	17'2	27'1
OF THE YEAR	30'7	28'9	31'0	28'1	20'5	19'2	28'6
III.—ADMISSION-RATE OF THE YEAR—							
Influenza	7'3	13'1	5'4	17'6	8'3	8'2	10'7
Cholera	2'0	'2	1'0	'8	3'8	1'3	1'0
Small-pox	'9	'9	2'0	1'3	1'4	'3	1'2
Enteric Fever	'5	'1	...	'2	...	...	'1
Intermittent Fever	301'1	257'0	224'5	352'9	215'9	225'4	276'2
Remittent Fever	15'8	24'0	4'0	19'1	12'8	11'8	16'2
Simple Continued Fever	10'0	2'7	11'7	19'5	20'3	2'2	9'9
Tubercle of the lungs	3'7	3'3	1'6	1'5	1'8	'6	2'5
Pneumonia	14'8	23'4	5'2	12'1	24'1	15'8	15'3
Other Respiratory Diseases	24'9	34'5	22'0	30'9	21'9	13'8	27'5
Dysentery	44'0	42'7	30'1	41'9	18'6	25'1	39'1
Diarrhœa	14'0	10'0	7'3	13'1	8'3	1'4	10'5
Hepatic { Abscess	'1	...	...	'2	...	...	'1
{ Congestion and Inflammation	1'3	1'0	1'3	1'3	1'0	1'3	1'2
Scurvy	1'4	5'0	'2	6'9	1'0	1'7	4'1
Venereal Diseases	50'7	23'9	46'9	45'0	19'0	14'2	37'1
ALL CAUSES	808'6	766'1	665'0	880'0	630'4	563'4	762'6
IV.—DEATH-RATE OF THE YEAR—							
Cholera	1'48	'10	'64	'53	2'17	'72	'69
Small pox	'08	'13	'04	'20	...	...	'10
Enteric Fever	'15	...	...	'04	...	...	'04
Intermittent Fever	'30	'41	1'08	'32	'40	...	'48
Remittent Fever	'72	1'83	'56	'97	'79	'72	1'07
Simple Continued Fever . . . . .	...	'03	...	'08	'20	...	'03
Circulatory Diseases	'11	'08	'28	'24	...	'14	'16
Tubercle of the lungs	1'18	'93	'24	'32	'59	...	'65
Pneumonia	1'45	6'21	1'08	2'10	3'95	3'30	3'14
Other Respiratory Diseases	'34	1'11	'12	'61	'20	'43	'58
Dysentery	'42	'33	'68	'40	'40	'14	'42
Diarrhœa	'19	'05	'12	'32	...	...	'14
Hepatic Abscess	'04	'05	'08	'16	...	...	'07
Anæmia and Debility	'04	'18	'44	'16	...	...	'18
ALL CAUSES	8'52	14'37	8'04	8'82	10'47	7'03	10'20
V.—PERCENTAGE IN 100 ADMISSIONS—							
Influenza	'90	1'71	'81	2'00	1'32	1'45	1'40
Cholera	'25	'02	'15	'09	'60	'23	'13
Small-pox	'11	'11	'30	'15	'22	'05	'15
Enteric Fever	'06	'01	'01	'02	...	...	'02
Intermittent Fever	37'24	33'54	33'76	40'10	34'25	40'01	36'22
Remittent Fever	1'95	3'13	'61	2'18	2'04	2'09	2'13
Simple Continued Fever	1'23	'36	1'76	2'21	3'23	'38	1'29
Tubercle of the lungs	'45	'43	'23	'17	'28	'10	'32
Pneumonia	1'83	3'05	'78	1'38	3'82	2'80	2'01
Other Respiratory Diseases	3'08	4'50	3'31	3'51	3'48	2'44	3'61
Dysentery	5'44	5'57	4'53	4'76	2'95	4'46	5'13
Diarrhœa	1'73	1'31	1'10	1'49	1'32	'25	1'38
Hepatic { Abscess	'01	...	'01	'02	...	...	'01
{ Congestion and Inflammation	'16	'13	'20	'14	'16	'23	'16
Scurvy	'17	'65	'02	'78	'16	'31	'54
Venereal Diseases	6'27	3'11	7'05	5'12	3'01	2'52	4'86
VI.—PERCENTAGE IN 100 DEATHS—							
Cholera	17'4	'7	8'0	6'0	20'8	10'2	6'7
Small-pox	'9	'9	'5	2'3	...	...	1'0
Enteric Fever	1'9	...	...	'5	...	...	'4
Intermittent Fever	3'6	2'9	13'4	3'7	3'8	...	4'7
Remittent Fever	8'5	12'7	7'0	11'0	7'5	10'2	10'5
Simple Continued Fever . . . . .	...	'2	...	'9	1'9	...	'3
Circulatory Diseases	1'3	'5	3'5	2'8	...	2'0	1'5
Tubercle of the lungs	13'8	6'5	3'0	3'7	5'7	...	6'4
Pneumonia	17'0	43'2	13'4	23'9	37'7	46'9	30'8
Other Respiratory Diseases	4'0	7'7	1'5	6'9	1'9	6'1	5'7
Dysentery	4'9	2'3	8'5	4'6	3'8	2'0	4'1
Diarrhœa	2'2	'4	1'5	3'7	...	...	1'4
Hepatic Abscess	'4	'4	1'0	1'8	...	...	'7
Anæmia and Debility	'4	1'3	5'5	1'8	...	...	1'8

* For complete detail of diseases see Table LIIL.

NATIVE TROOPS, 1896.

TABLE XXVII.

RATIOS of GEOGRAPHICAL GROUPS.

The ratios of admissions and deaths to strength are taken from Table XXVIII.

The actuals will be found in Table XXIX.

RATIO PER 1,000 OF THE AVERAGE STRENGTH.

	I Burma Coast and Bay Islands.	II Burma Inland.	III Assam.	IV Bengal and Orissa.	V Gange- tic Plain and Chutia Nagpur.	VI Upper Sub- Hima- layan.	VII N.-W. Frontier, Indus Valley and N.-W. Raj- putana.	VIII S.-E. Rajpu- tana, Central India and Gujarat.	IX Dec- can.	X West- ern Coast.	XI South- ern India.	XII Hill Stations.	Army of India.*
I.—AVERAGE ANNUAL STRENGTH	2,324	6,680	1,774	3,113	6,780	16,176	14,776	12,283	20,434	2,731	8,736	17,071	128,286
II.—CONSTANTLY SICK-RATE OF EACH MONTH—													
January	17'9	38'0	33'7	40'3	25'4	32'0	40'3	32'8	27'2	24'7	31'8	38'6	31'4
February	16'3	33'8	28'9	50'2	22'4	26'3	28'2	26'4	26'2	27'1	31'2	32'0	27'1
March	16'3	32'3	30'7	36'4	23'7	20'8	23'6	24'3	24'9	26'4	28'8	33'6	24'8
April	20'7	33'1	46'5	28'5	24'6	20'8	22'8	27'6	26'4	29'1	29'7	39'3	26'5
May	17'8	33'4	45'4	27'7	23'7	20'0	20'8	22'3	27'2	26'4	27'2	38'7	25'6
June	20'0	40'9	51'5	28'1	21'7	19'0	21'1	20'3	24'9	23'2	27'9	37'9	26'1
July	20'6	52'9	57'3	40'4	27'5	22'5	24'7	20'4	26'7	28'1	29'6	39'2	20'8
August	20'4	76'5	54'0	35'4	25'1	25'4	27'5	24'0	26'3	28'6	26'3	41'5	32'1
September	19'0	68'7	46'8	30'9	29'3	25'6	28'0	28'8	27'0	31'6	27'8	41'9	32'4
October	20'5	57'2	53'7	28'0	24'9	26'5	29'2	28'7	28'0	32'6	25'4	41'8	31'2
November	23'3	48'0	44'3	37'6	25'8	26'1	30'7	28'8	26'0	25'9	26'8	42'5	29'7
December	22'4	39'8	47'2	42'3	23'6	22'6	28'3	26'8	24'2	25'0	29'2	37'1	27'1
OF THE YEAR	19'6	45'9	44'5	36'1	24'8	24'2	27'4	26'0	26'2	27'3	28'5	38'6	28'6
III.—ADMISSION-RATE OF THE YEAR—													
Influenza	...	13'2	11'8	4'8	11'1	1'3	13'8	8'7	4'1	...	4'8	35'4	10'7
Cholera	...	...	20'9	'6	'6	'6	'2	1'8	1'6	...	2'3	...	1'0
Small-pox	...	'4	...	...	'7	1'7	'8	2'4	1'6	1'1	2'5	'6	1'2
Enteric Fever	...	...	1'7	'3	'6	'2	'1	'3	...	...	'1	'1	'1
Intermittent Fever	79'2	493'3	391'2	308'1	161'7	164'7	288'2	237'3	340'4	121'0	112'3	425'6	276'2
Remittent Fever	2'6	5'4	16'3	4'5	16'7	23'7	22'1	11'4	13'2	28'6	3'4	25'7	16'2
Simple Continued Fever	2'6	3'1	16'3	42'1	'6	5'9	2'5	21'7	14'8	19'0	23'2	5'6	9'9
Tubercle of the lungs	1'7	1'9	3'4	1'9	3'1	4'5	3'2	2'2	1'4	2'6	'9	3'7	2'5
Pneumonia	1'3	3'6	8'5	13'8	5'9	15'8	27'7	21'3	14'1	4'4	5'2	20'9	15'3
Other Respiratory Diseases	12'0	31'9	28'2	32'8	26'5	23'1	34'7	24'8	18'2	22'0	21'6	36'4	27'5
Dysentery	65'0	39'4	85'7	69'1	33'0	19'2	40'5	31'8	28'6	44'7	25'5	40'9	39'1
Diarrhœa	6'0	14'1	65'4	17'0	6'8	4'3	10'8	8'6	4'4	13'9	4'5	18'6	10'5
Hepatic { Abscess Congestion and Inflammation	...	...	...	...	...	'1	'1	...	'1	'4	'1	'1	'1
Scurvy	'9	1'2	'6	1'6	'9	'9	1'2	'9	1'4	2'9	1'3	1'6	1'2
Venereal Diseases	25'4	44'5	98'1	26'0	33'9	28'6	19'1	41'0	41'6	74'7	51'4	56'8	37'1
ALL CAUSES	475'9	981'6	1,149'4	868'3	598'4	610'3	820'7	713'4	785'4	606'7	577'7	1,034'7	762'6
IV.—DEATH-RATE OF THE YEAR—													
Cholera	...	...	14'09	'64	'29	'56	'07	'98	'98	...	1'37	...	'69
Small-pox	...	...	...	...	'15	'06	'34	'33	'05	...	...	'06	'10
Enteric Fever	...	...	'56	...	'29	...	...	'16	...	...	...	...	'04
Intermittent Fever	2'15	2'84	...	'64	'44	'31	'54	'24	'20	...	...	'18	'48
Remittent Fever	...	1'35	1'69	...	'74	1'55	1'62	'65	'69	1'46	'46	1'17	1'07
Simple Continued Fever	...	...	...	...	...	...	...	'08	'05	...	...	'06	'03
Circulatory Diseases	...	'30	'56	...	'15	...	'14	'16	'24	'37	'34	'12	'16
Tubercle of the lungs	...	'45	1'13	'32	'88	1'30	'34	'65	'20	'37	'23	1'64	'65
Pneumonia	...	1'05	'56	2'25	'29	3'46	9'20	2'93	2'30	1'10	1'26	3'57	3'14
Other Respiratory Diseases	'43	...	...	'32	'29	1'24	1'29	'33	'54	...	'23	'29	'58
Dysentery	'43	1'65	...	'64	'29	'25	'27	'49	'20	'37	'34	'41	'42
Diarrhœa	'43	'15	'56	'64	...	'06	...	...	'15	1'83	...	'06	'14
Hepatic Abscess	'43	...	...	...	...	'06	'07	...	'15	...	'11	'06	'07
Anæmia and Debility	'86	'75	...	...	...	'12	'14	'08	'10	1'10	'11	'12	'18
ALL CAUSES	6'88	11'08	21'98	7'71	5'46	11'07	17'66	9'04	7'34	9'89	7'67	10'25	10'20
V.—PERCENTAGE IN 100 ADMISSIONS—													
Influenza	...	1'34	1'03	'55	1'85	'21	1'68	1'22	'52	...	'83	3'42	1'40
Cholera	...	...	1'81	'07	'10	'10	'02	'25	'20	...	'40	...	'13
Small-pox	...	'05	...	...	'12	'27	'10	'33	'21	'18	'44	'06	'15
Enteric Fever	...	...	'15	'04	'10	'03	'01	'05	'01	...	'02	'01	'02
Intermittent Fever	16'64	50'25	34'04	35'48	27'02	26'99	35'11	33'26	43'34	20'10	19'44	41'13	36'22
Remittent Fever	'54	'55	1'42	'52	2'79	3'88	2'70	1'60	1'68	4'71	'59	2'49	2'13
Simple Continued Fever	'54	'32	1'42	4'85	'10	'97	'31	3'05	1'89	3'14	4'02	'54	1'29
Tubercle of the lungs	'36	'20	'29	'22	'52	'73	'40	'31	'18	'42	'16	'36	'32
Pneumonia	'27	'37	'74	1'59	'99	2'59	3'38	2'99	1'79	'72	'89	2'02	2'01
Other Respiratory Diseases	2'53	3'25	2'45	3'77	4'44	3'78	4'22	3'48	2'31	3'62	3'74	3'52	3'61
Dysentery	13'65	4'01	7'45	7'95	5'52	3'14	4'93	4'46	3'65	7'36	4'42	3'96	5'13
Diarrhœa	1'27	1'43	5'69	1'96	1'13	'70	1'31	1'21	'55	2'29	'77	1'79	1'38
Hepatic { Abscess Congestion and Inflammation	...	...	...	...	...	'01	'02	...	'01	'06	'02	'01	'01
Scurvy	'18	'12	'05	'18	'15	'14	'14	'13	'18	'48	'22	'16	'16
Venereal Diseases	5'33	4'53	8'53	3'00	5'67	4'68	2'33	5'74	5'30	12'31	8'90	5'49	4'86
VI.—PERCENTAGE IN 100 DEATHS—													
Cholera	...	...	64'1	8'3	5'4	5'0	'4	10'8	13'3	...	17'9	...	6'7
Small-pox	...	...	...	...	2'7	'6	1'9	3'6	'7	...	...	'06	1'0
Enteric Fever	...	...	2'6	...	5'4	...	...	1'8	...	...	...	...	'4
Intermittent Fever	31'3	25'7	...	8'3	8'1	2'8	3'1	2'7	2'7	...	...	1'7	4'7
Remittent Fever	...	12'2	7'7	...	13'5	14'0	9'2	7'2	9'3	14'8	6'0	11'4	10'5
Simple Continued Fever	...	...	...	...	...	...	...	'9	'7	...	...	'6	'3
Circulatory Diseases	...	2'7	2'6	...	2'7	...	'8	1'8	3'3	3'7	4'5	1'1	1'5
Tubercle of the lungs	...	4'1	5'1	4'2	16'2	11'7	1'9	7'2	2'7	3'7	3'0	16'0	6'4
Pneumonia	...	9'5	2'6	29'2	5'4	31'3	52'1	32'4	31'3	11'1	16'4	34'9	30'8
Other Respiratory Diseases	6'2	...	...	4'2	5'4	11'2	7'3	3'6	7'3	...	3'0	2'9	5'7
Dysentery	6'2	14'9	...	8'3	5'4	2'2	1'5	5'4	2'7	3'7	4'5	4'0	4'1
Diarrhœa	6'2	1'4	2'6	8'3	...	'6	...	...	2'0	18'5	...	...	1'4
Hepatic Abscess	6'2	...	...	...	...	'6	'4	...	2'0	...	1'5	'6	'7
Anæmia and Debility	12'6	6'8	...	...	...	1'1	'8	'9	1'3	11'1	1'5	1'1	1'8

* Including Group Extra-India. For complete detail of diseases see Table LIII.

NATIVE TROOPS, 1896.

TABLE XXVIII.

RATIOS of STATIONS, GROUPS and COMMANDS.

For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE, PER 1,000 OF STRENGTH.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.
Port Blair . . .	307 {	...	...	...	...	22'8	...	13'0	...	...	...	19'5	6'5	...	...	...	...	9'8	6'5	228'0	9'8	...	...	6'5	...
Moulmein . . .	787 {	...	...	...	...	101'7 2'54	2'5	...	...	...	...	7'6	53'4	1'3	...	...	...	19'1	21'6	423'2 3'81	20'3	2'5	2'5	14'0	2'5
Rangoon . . .	1,230 {	...	...	...	...	78'9 2'44	3'3	1'6	4'1	3'3	2'4	13'0 81	87'0 81	10'6 81	...	1'6	...	45'5 1'63	32'5	568'3 10'57	21'1	10'6	4'1	8'9	8'9
GROUP I.—BURMA COAST AND BAY ISLANDS.	2,324 {	...	...	...	...	79'2 2'15	2'6	2'6	2'2	1'7	1'3	12'0 43	65'0 43	6'0 43	...	9	...	31'8 86	25'4	475'9 6'88	19'6	6'5	3'0	10'3	5'6
Thayetmyo . . .	660 {	...	...	...	...	192'4	...	...	...	...	3'0	18'2	68'2 6'06	1'5	...	1'5	...	27'3	48'5 1'52	595'5 9'09	28'8	9'1 1'52	...	9'1	30'3
Meiktila . . .	680 {	...	...	...	...	51'5	2'9	...	...	...	1'5	33'8	17'6	...	...	1'5	...	10'3	45'6	339'7	19'1	14'7	1'5	22'1	7'4
Mindat-Sakan . . .	129 {	...	...	...	...	852'7	23'3 7'75	...	15'5 7'75	...	7'8	93'0	209'3 15'50	217'1	...	15'5	...	100'8 7'75	7'8	2209'3 62'02	62'0	...	...	7'8	...
Myingyan . . .	487 {	6'2	...	...	...	143'7	...	28'7	...	...	...	20'5	26'7	10'3	...	...	...	14'4	78'0	574'9 2'05	39'0	34'9	4'1	14'4	24'6
Pagan . . .	37 {	...	...	...	...	135'1	...	...	...	...	...	...	...	27'0	...	...	...	...	...	243'2	...	...	...	...	...
Kan . . .	8 {	...	...	...	...	125'0	...	...	...	...	...	125'0	125'0	...	...	...	...	...	...	500'0	...	...	...	...	...
Haka . . .	427 {	161'6	...	...	...	269'3	9'4 2'34	4'7	...	2'3	...	60'9	18'7	...	...	2'3	...	28'1	9'4	906'3 4'68	25'8	2'3	...	...	7'0
Falam . . .	188 {	...	...	...	...	196'8	...	...	5'3 5'32	5'3	...	31'9	47'9 5'32	21'3	...	...	...	37'2	42'6	569'1 10'64	42'6	5'3	...	31'9	5'3
Kalemyo . . .	10 {	...	...	...	...	100'0	...	...	...	...	...	100'0	...	...	...	...	...	100'0	...	300'0	...	...	...	...	...
Kalewa . . .	69 {	...	...	...	...	376'8	...	...	...	...	...	...	101'4	...	...	...	...	43'5	...	724'6	14'5	...	...	...	...
Kyaukmyaung . . .	19 {	...	...	52'6	...	210'5	...	...	...	...	...	...	105'3	...	...	...	...	...	52'6	473'7 52'63	...	...	...	...	52'6
Bhamo . . .	801 {	...	...	...	...	795'3 3'75	10'0 1'25	...	8'7	2'5	3'7	56'2	62'4 1'25	6'2	...	1'2	1'2	35'0	3'7	1339'6 7'49	42'4	1'2	1'2	...	1'2
Thabeitkyin . . .	50 {	...	...	...	...	280'0	...	...	...	...	20'0	...	240'0	...	...	...	...	...	...	720'0	20'0	...	...	...	...
Shwebo . . .	194 {	...	...	...	...	288'7	...	...	5'2	...	...	36'1	41'2 5'15	10'3	...	5'2	5'2	10'3	51'5	788'7 5'15	51'5	20'6	...	20'6	10'3
Fort Dufferin . . .	1,682 {	...	...	1'2	...	261'6 59	2'4	1'8	...	5'4 1'78	4'2 2'38	14'3	8'3	7'1	...	...	...	10'1	71'3	649'8 6'54	27'9	25'0	3'6	13'1	29'7
Loikaw . . .	88 {	...	...	...	...	2181'8	22'7 11'36	...	...	...	...	79'5	113'6	...	...	...	...	136'4	11'4	3068'2 22'73	45'5	...	...	...	11'4
Fort Stedman . . .	450 {	35'6	...	...	...	333'3 2'22	2'2	4'4	2'2	...	8'9 2'22	40'0	26'7 2'22	13'3	...	...	...	144'4 2'22	33'3	875'6 17'78	46'7	2'2	2'2	8'9	20'0
Bampon . . .	86 {	...	...	...	...	1476'7	34'9 11'63	...	...	...	34'9 11'63	81'4	23'3	34'9	...	...	...	186'0	...	2267'4 23'26	81'4	...	...	...	...
Thamakan . . .	31 {	...	...	...	...	290'3	...	...	...	...	...	...	129'0	64'5	...	...	...	32'3	129'0	935'5	32'3	32'3	...	64'5	32'3
Toungyi . . .	49 {	...	...	...	...	285'6	...	...	...	...	...	...	20'4	20'4	...	...	...	...	20'4	489'8	...	...	...	...	20'4
Keng Tung . . .	486 {	...	...	...	...	2238'7 28'81	14'4 6'17	...	...	...	4'1 2'06	20'6	53'5 2'06	49'4 2'06	...	2'1	...	164'6 4'12	57'6	3008'2 49'38	203'7	2'1	14'4	12'3	28'8
Mong Hsing . . .	51 {	...	...	...	...	725'5	39'2	...	...	...	...	78'4	...	...	...	...	...	...	...	1372'5	58'8	...	...	...	...
GROUP II.—BURMA INLAND	6,680 {	13'2	...	4	...	493'3 2'84	5'4 1'35	3'1	1'8 3'0	1'9 45	3'6 1'05	31'9	39'4 1'65	14'1 15	...	1'2	3	43'3 75	44'5 15	981'6 11'08	45'9	12'7 15	2'7	10'9	18'1
Silchar . . .	445 {	...	...	...	...	411'2	4'5	...	2'2 2'25	...	4'5	29'2	121'3	161'8	...	...	...	69'7	40'4	1406'7 2'25	40'4	4'5	2'2	13'5	20'2
Dibrugarh . . .	321 {	34'3	...	...	...	582'6	37'4	...	...	...	3'1	31'2	115'3	12'5	...	...	...	21'8	28'0	1152'6	34'3	9'3	...	12'5	6'2
Manipur . . .	1,009 {	9'9	36'7 24'78	...	3'0	321'1 99	14'9 2'97	28'7	...	5'9 1'98	11'9 99	26'8	60'5	39'6 99	...	1'0	...	67'4	145'7	1033'7 37'66	49'6	30'7	19'8	14'9	80'3
GROUP III.—ASSAM	1,774 {	11'8	20'9 14'09	...	1'7 56	391'2	16'3 1'69	16'3	6 56	3'4 1'13	8'5 56	28'2	85'7	65'4 56	...	6	...	59'8	98'1	1149'4 21'98	44'5	20'3	11'8	14'1	51'9

NATIVE TROOPS, 1896.

TABLE XXVIII—continued.

RATIOS of STATIONS, GROUPS, and COMMANDS.

For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.								2. DEATH-RATE, PER 1,000 OF STRENGTH.															
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.
Fort William .	927 {	...	1'1 1'08	...	1'1	447'7	5'4	7'6	2'2	4'3 1'08	27'0 5'39	55'0	106'8 1'08	42'1	...	1'1	3'2	42'1	31'3	1155'4 9'71	59'3	6'5	4'3	10'8	9'7
Alipore and Ballygunge.	634 {	23'7	...	...	...	354'9	11'0	45'7	...	1'6	1'6	48'9	77'3	6'3	...	3'2	...	22'1	37'9	1130'9 3'15	39'4	...	4'7	12'6	20'5
Dum Dum .	117 {	...	...	...	...	128'2	8'5	...	...	...	8'5	8'5	59'8	17'1	...	...	8'5	8'5	8'5	427'4	17'1	8'5	...	...	...
Barrackpore .	746 {	...	...	...	...	179'6 1'34	...	127'3	...	...	14'7 1'34	8'0	41'6	5'4 2'68	...	2'7 1'34	...	...	21'4	640'8 10'72	22'8	9'4	2'7	...	9'4
Buxa .	343 {	...	...	...	...	440'2 2'92	2'9	...	...	2'9	2'9	23'3 2'92	84'5 2'92	5'8	...	...	...	23'3	5'8	845'5 8'75	26'2	...	2'9	...	2'9
Cuttack .	346 {	...	2'9 2'89	...	...	54'9	...	...	...	...	11'6 2'89	14'5	...	5'8	...	...	...	17'3	26'0	280'3 5'78	14'5	5'8	8'7	2'9	8'7
GROUP IV.— BENGAL AND ORISSA .	3,113 {	4'8	'6	...	'3	308'1	4'5	42'1	'6	1'9	13'8	32'8	69'1	17'0	...	1'6	1'3	21'8	26'0	868'3 7'71	36'1	5'1	4'2	6'1	10'6
Doranda .	424 {	54'2 9'43	...	2'4	...	280'7	...	...	2'4	...	4'7	25'9	44'8	2'4	...	...	...	7'1	7'1	592'0 9'43	18'9	2'4	...	4'7	...
Dinapore .	584 {	10'3	1'7	...	...	24'0	46'2 1'71	...	...	1'7	...	17'1	17'1	...	...	...	...	15'4	24'0	323'6 1'71	17'1	17'1	...	3'4	3'4
Benares .	780 {	...	...	...	...	270'5 1'28	10'3 1'28	...	3'8	1'3	7'7	48'7 1'28	28'2	7'7	...	...	...	28'2	46'2	846'2 5'13	34'6	14'1	2'6	14'1	15'4
Fyzabad .	1,221 {	'8 '82	'8	...	...	153'2	4'9	...	1'6	5'7 2'46	4'9	29'5	29'5	8'2	...	...	'8	4'1	73'7	696'2 5'73	27'8	22'9	8'2	23'8	18'8
Lucknow .	1,224 {	27'8 '82	...	...	'8 '82	108'7	2'5	...	...	3'3	8'2	18'8	31'0	4'1	...	'8	1'6	5'7	20'4	440'4 1'63	18'8	10'6	...	7'4	2'5
Fatehgarh .	95 {	...	...	...	...	378'9	...	...	...	10'5 10'53	21'1	52'6	63'2	42'1	...	...	...	10'5	73'7	1010'5 10'53	42'1	52'6	...	...	21'1
Cawnpore .	1,186 {	...	...	2'5 '84	'8	171'2 '84	45'5 2'53	...	...	'8	8'4 '84	29'5 '84	34'6	14'3	...	'8	'8	13'5	21'1	653'5 8'43	25'3	3'4	'8	7'6	9'3
Allahabad .	1,266 {	8'7	1'6 1'58	'8	1'6 '79	152'4 '79	11'8	3'2	'8	4'7 1'58	3'2 '79	17'4	41'1 '79	2'4	...	3'2	3'9	14'2	23'7	550'6 6'32	25'3	6'3	'8	10'3	6'3
GROUP V.—GAN- GETIC PLAIN AND CHUTIA NAGPUR.	6,780 {	11'1 '88	'6 '29	'7 '15	'6 '29	161'7 '44	16'7 '74	'6	1'0 '15	3'1 '88	5'9 '29	26'5 '29	33'0 '29	6'8	...	'9	1'3	11'9	33'9	598'4 5'46	24'8	11'8	2'1	11'1	9'0
Bareilly .	1,204 {	15'8	...	...	...	141'2	39'9 1'66	...	...	3'3	2'5	10'8	13'3	3'3	...	...	...	10'0 '83	19'9	495'8 4'15	19'1	10'8	...	5'8	3'3
Dehra Dun .	1,517 {	'7	4'6 3'96	2'0	...	241'3 '66	29'7 '66	60'0	...	11'9 6'53	7'9 '66	20'4	13'8 '66	6'6 '66	...	2'0	'7	23'7	64'6	834'5 14'50	30'3	17'1	2'6	19'1	25'7
Roorkee .	526 {	1'9 1'90	...	...	...	148'3	9'5	...	...	...	13'3 3'80	11'4	9'5	7'6	...	1'9	...	7'6	39'9	500'0 5'70	24'7	11'4	3'8	7'6	17'1
Meerut .	1,244 {	...	...	'8	2'4	405'9	9'6	...	1'6	6'4 '80	20'1 3'22	37'8 '80	33'8 '80	4'0	'8	...	'8	9'6	61'1	1113'7 6'43	33'0	25'7	13'7	7'2	14'5
Delhi .	708 {	...	...	5'6 1'41	...	320'6	26'8	...	...	2'8	29'7 9'89	28'2 2'82	8'5	1'4	...	1'4	1'4	11'3	9'9	713'3 16'95	19'8	...	2'8	5'6	1'4
Umballa .	1,269 {	...	...	1'6	...	127'6 '79	56'7	...	...	'8	17'3 '79	7'9	13'4	...	...	...	...	7'1	22'9	466'5 3'15	19'7	3'9	5'5	4'7	8'7
Ludhiana .	36 {	...	...	...	...	361'1	27'8	...	...	...	...	111'1	27'8	...	...	...	...	27'8	83'3	1250'0	27'8	83'3	...	...	...
Jullundur .	910 {	...	...	4'4	...	125'3	3'3 2'20	...	2'2	2'2	15'4 2'20	12'1 1'10	17'6	1'1	...	1'1	11'0	15'4 1'10	11'0	460'4 12'09	18'7	3'3	2'2	4'4	1'1
Ferozepore .	1,672 {	...	...	1'2	...	65'8	15'0 2'39	...	1'8	2'4 '60	7'8 1'79	25'1 2'39	17'3	3'0	...	'6	3'6	12'6	23'9	492'8 11'96	22'7	4'2	5'4	6'0	8'4
Sialkot .	1,907 {	...	...	2'6	...	104'4 '52	12'6 1'57	'5	1'0	5'8 2'10	28'3 8'39	16'3 1'05	14'2 '52	3'7	...	1'0	'5	8'9	10'0	485'6 15'73	19'9	5'2	...	1'6	3'1
Amratsar .	155 {	...	...	...	...	96'8	...	...	...	...	12'9 6'45	6'5	12'9	...	...	...	...	...	19'4	419'4 6'45	19'4	...	...	2'9	6'5

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.												2. DEATH-RATE, PER 1,000 OF STRENGTH.											
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.
Meean Meer . . .	1,567 {	...	...	1'9	...	79'1 .64	35'1 .64	1'9	...	1'9 .64	25'5 3'83	31'3 1'91	14'0	3'2	...	...	...	11'5	24'9	520'1 10'21	24'3	5'7	8'3	5'7	5'1
Jhelum . . .	1,289 {	...	...	...	...	139'6 .78	48'9 6'98	...	...	6'2 .78	4'7 3'10	34'9 3'88	11'6 .78	10'1	...	...	3'1	10'9	27'2	612'9 17'84	28'7	3'9	3'1	6'2	14'0
Rawalpindi . . .	2,098 {	...	1'4 1'43	1'4	...	180'6	4'8 .95	5	1'0	5'2 1'43	17'2 4'29	28'6	38'6	6'2	...	1'9	1'4	27'2	27'6	637'7 10'96	26'7	11'0	1'4	6'7	8'6
Attock . . .	74 {	...	...	...	...	297'3	13'5 13'51	...	...	...	13'5	40'5	135'1	13'5	...	...	...	13'5	...	729'7 13'51	27'0	...	...	...	...
GROUP VI.— UPPER SUB- HIMALAYAN.	16,176 {	1'3 .06	6 .56	1'7 .06	2	164'7 .31	23'7 1'55	5'9	7	4'5 1'30	15'8 3'46	23'1 1'24	19'2 .25	4'3 0'6	1 .06	9	1'7 .12	13'8 .12	28'6	610'3 11'07	24'2	8'8	3'9	6'7	9'1
Bikanir . . .	39 {	...	...	...	...	51'3	51'3	...	...	...	...	...	51'3	...	...	...	...	...	25'6	256'4	...	25'6	...	...	...
Mooltan . . .	904 {	...	...	2'2	...	230'1	53'1 3'32	...	...	1'1	34'3 8'85	34'3	53'1 1'11	4'4	...	2'2	3'3	46'5	13'3	820'8 14'38	28'8	4'4	...	4'4	4'4
Nowshera . . .	1,112 {	...	...	9	...	206'8 .90	25'2 1'80	9	9	4'5	36'9 25'18	54'9 8'99	6'3	7'2	...	1'8	...	16'2	9'9	692'4 37'77	23'4	9	1'8	2'7	4'5
Peshawar . . .	2,812 {	20'3 4'62	...	1'4 1'07	4	161'1 .71	16'0 1'78	...	1'4	2'8 .36	25'2 8'53	16'0	19'6 .36	5'7	...	4	1'8	6'0	21'3	496'8 21'34	20'3	5'7	6'4	1'8	7'5
Fort Jamrud . . .	140 {	...	...	...	...	28'6	28'6	...	...	...	7'1	7'1	50'0	7'1	...	...	...	7'1	7'1	185'7	...	...	...	7'1	...
Mardan . . .	925 {	...	...	1'1	...	261'6 2'16	8'6 2'16	...	...	6'5	28'1 7'57	64'9 3'24	38'9	31'4	...	3'2	4'3	9'7	4'3	811'9 15'14	27'0	...	...	3'2	1'1
Kohat and outposts	2,442 {	4 .82	1'2 .41	...	...	351'8 .41	22'1 2'46	...	4	4'9 .82	27'4 12'29	33'6 .41	59'4	13'9	...	8	5'7	12'3	14'7	928'7 19'25	29'1	8	4	5'7	7'8
Edwardesabad „	1,396 {	63'0	...	2'9 1'43	...	431'9	42'3	15'0	2'1	3'6 .72	50'9 7'16	45'8 .72	53'0	20'1	...	...	3'6	38'0 1'43	11'5	1313'8 15'76	41'5	4'3	...	1'4	5'7
Jandola . . .	193 {	...	...	...	...	347'2	15'5	...	...	...	10'4	31'1	129'5	10'4	...	...	5'2	15'5	10'4	901'6 20'72	25'9	...	...	...	10'4
Khajuri Kach . . .	329 {	...	...	...	...	264'4	12'2	...	...	...	12'2 3'04	42'6 3'04	121'6	3'0	...	3'0	9'1	9'1	9'1	662'6 6'08	18'2	3'0	...	3'0	3'0
Dera Ismail Khan and outposts.	1,407 {	24'9 .71	...	...	...	299'9	27'0 1'42	5'0	7	1'4	34'8 12'08	41'2 .71	33'4 .71	14'9	7 .71	...	12'1	32'0	12'1	970'1 19'19	31'3	7	2'8	3'6	5'0
Dera Ghazi Khan and outposts.	1,176 {	18'7 .85	...	...	...	176'0 .85	13'6 2'55	1'7	...	6'0	24'7 6'80	22'1	36'6	4'3	...	...	4'3	6'0	19'6	658'2 11'91	23'0	8'5	...	8'5	2'6
Sibi . . .	146 {	6'8	...	...	...	958'9	13'7	13'7	...	...	6'8 13'70	6'8	61'6	13'7	...	6'8	...	13'7	47'9	1479'5 20'55	27'4	6'8	...	...	41'1
Jacobabad . . .	664 {	...	...	...	...	396'1 1'51	4'5	...	...	...	15'1 1'51	40'7 3'01	15'1	6'0	...	...	...	4'5	31'6	917'2 9'04	33'1	3'0	13'6	1'5	13'6
Hyderabad . . .	464 {	...	...	...	...	211'2	10'8	6'5	...	2'2 2'16	10'8	36'6	60'3 2'16	...	2'2	8'6	...	17'2	81'9	625'0 8'62	30'2	19'4	12'9	25'9	23'7
Kurrachee . . . GROUP VII.—N. W. FRONTIER, IN- DUS VALLEY AND NORTH-WESTERN RAJPUTANA . . .	628 { 14,776 {	...	...	...	...	593'9	12'7 1'59	1'6	...	1'6	3'2	30'3	35'0	6'4	...	1'6	4'8	12'7	47'8	1087'6 4'78	30'3	15'9	1'6	4'8	25'5
		13'8 1'15	2 .07	8 .34	1	288'2 .54	22'1 1'62	2'5	7 .14	3'2 .34	27'7 9'20	34'7 1'29	40'5 .27	10'8	1 .07	1'2	4'1	16'9 .14	19'1	820'7 17'66	27'4	4'3	2'8	4'3	7'6
Agra . . .	689 {	...	...	1'5 1'45	1'5	314'9	7'3	2'9	...	2'9 2'90	29'0 1'45	21'8	91'4 1'45	33'4	...	...	...	8'7	36'3	748'9 7'26	26'1	11'6	1'5	5'8	17'4
Jhansi . . .	626 {	...	1'6 1'60	4'8	...	439'3	...	...	...	...	4'8	9'6	87'9 1'60	8'0	...	1'6	...	4'8	20'8	939'3 4'79	30'4	12'8	...	4'8	3'2
Nowgong . . .	1,058 {	...	9	...	...	225'9 .95	6'6	...	...	...	33'1	18'9	40'6 .95	1'9	...	...	9	8'5	105'9	692'8 2'84	27'4	25'5	37'8	14'2	28'4
Nasirabad . . .	481 {	...	...	2'1 2'08	...	133'1	2'1	...	2'1	...	20'8 4'16	18'7 2'08	39'5	...	...	...	...	10'4	45'7	528'1 8'32	24'9	8'3	14'6	6'2	16'6
Neemuch . . .	397 {	5'0 5'04	...	10'1	...	471'0 2'52	10'1	10'1	10'1	5'0 5'04	20'2	10'1	22'7	17'6	...	...	5'0	40'3	20'2	1146'1 12'59	45'3	2'5	2'5	5'0	10'1
Indore . . .	200 {	...	...	...	...	160'0	15'0	5'0	...	...	25'0	80'0	70'0	10'0	...	15'0	...	5'0	65'0 5'00	620'0 5'00	25'0	25'0	10'0	5'0	25'0

NATIVE TROOPS, 1896.

TABLE XXVIII—continued.

RATIOS of STATIONS, GROUPS and COMMANDS.

For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE, PER 1,000 OF STRENGTH.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.
Sehore and outposts	816	...	7'4 4'90	...	...	430'1	13'5 1'23	109'1 1'23	...	...	7'4	8'6	30'6 2'45	7'4	...	...	2'5	15'9	34'3	867'6 11'03	20'8	19'6	...	8'6	6'1
Mhow . . .	1,079	38'9 '93	...	6'5 '93	...	223'4	2'8 '93	7'4	2'8	'9	24'1 4'63	20'4 '93	31'5	10'2	...	...	2'8	10'2	69'5	780'4 10'19	36'1	5'6	31'5	11'1	21'3
Sadra . . .	58	...	...	...	...	241'4	...	34'5	...	17'2	34'5	69'0	17'2	...	...	...	...	...	...	534'5 17'24	17'2	...	...	...	...
Agar . . .	331	...	6'0 3'02	3'0	...	205'4	15'1	9'1	...	...	...	9'1	15'1	6'0	...	...	3'0	12'1	21'1	546'8 9'06	18'1	6'0	...	6'0	9'1
Goona . . .	372	51'1	8'1 8'06	...	...	322'6	2'7	8'1	...	...	21'5 2'69	10'8	37'6	8'1	...	2'7	2'7	48'4	18'8	876'3 18'82	29'6	...	8'1	5'4	5'4
Sirdarpore . .	329	15'2	24'3 6'08	15'2	...	297'9	6'1	12'2	...	3'0	33'4	79'0	15'2	9'1	...	3'0	...	15'2	12'2	1088'1 6'08	27'4	3'0	...	3'0	6'1
Barwani . . .	75	...	...	...	...	120'0	...	...	...	26'7 26'67	40'0 13'33	40'0	...	13'3	...	...	...	...	...	240'0 40'00	13'3	...	...	...	...
Jhabwa . . .	40	...	...	...	...	100'0	...	...	...	...	75'0	25'0	...	...	...	...	...	...	...	575'0	25'0	...	...	...	...
Alirajpore . .	38	...	...	...	...	131'6	...	...	...	...	...	26'3	26'3	...	...	...	...	...	...	368'4	...	...	...	...	...
Kherwara . . .	351	45'6	...	...	...	111'1 2'85	...	...	...	2'8	82'6 8'55	51'3 2'85	5'7	...	...	...	...	...	...	834'8 14'25	45'6	...	...	...	...
Oodeypore . .	62	32'3 16'13	...	...	...	129'0	...	...	...	...	16'1 16'13	48'4	16'1	16'1	...	...	...	...	...	419'4 32'26	16'1	...	...	...	...
Kotra . . .	134	...	...	...	...	216'4	7'5	...	...	...	14'9	22'4	7'5	...	...	...	...	29'9	22'4	537'3	22'4	...	...	22'4	...
Erinpura . . .	547	...	...	...	...	184'6	21'9 5'48	...	...	1'8	40'2 12'80	16'5	14'6	34'7	...	...	1'8	20'1	9'1	590'5 18'28	23'8	1'8	1'8	1'8	3'7
Deoli . . .	566	...	...	...	...	102'5	30'0	1'8	...	...	3'5 1'77	5'3	26'5	1'8	...	3'5	...	14'1	38'9	484'1 5'30	14'1	10'6	7'1	3'5	17'7
Jeypore . . .	60	...	...	...	...	...	...	33'3	...	...	...	...	...	...	...	...	...	...	16'7	150'0	16'7	...	...	...	16'7
Jhalawar . . .	86	...	...	...	...	209'3	11'6	11'6	...	...	46'5	34'9	11'6	...	...	...	...	...	58'1	651'2	11'6	34'9	...	...	23'3
Ajmere . . .	529	...	...	1'9	...	172'0	24'6	...	1'9	5'7	39'7 11'34	47'3	15'1	3'8	...	1'9	...	1'9	17'0	638'9 11'34	22'7	5'7	...	1'9	9'5
Beawar . . .	46	...	...	...	...	65'2	...	...	...	21'7 21'74	21'7	...	...	43'5	...	...	...	...	21'7	326'1 21'74	21'7	...	...	...	21'7
Sambhar . . .	21	...	...	...	...	95'2	...	...	...	...	47'6	...	...	...	...	...	...	...	...	190'5	...	...	...	...	...
Deesa . . .	1,095	...	...	'9 '91	...	120'5	14'6 '91	7'3	...	3'7 2'74	8'2 3'65	20'1	22'8 '91	3'7	...	...	2'7	10'0	26'5	464'8 10'05	15'5	11'9	1'8	5'5	7'3
Ahmedabad	469	...	2'1 2'13	6'4 2'13	2'1 2'13	300'6	51'2	2'1	...	8'5	17'1 4'26	83'2	8'5	6'4	...	...	2'1	14'9	89'6	982'9 14'93	34'1	6'4	36'2	23'5	23'5
Rajkot . . .	332	...	...	...	...	457'8	12'0	90'4	...	6'0	12'0 6'02	15'1	18'1	6'0	...	...	9'0	15'1	54'2	1003'0 6'02	24'1	15'1	...	6'0	33'1
Bhuj . . .	675	31'1	...	...	...	28'1	4'4 1'48	108'1	...	3'0	16'3	13'3	16'3	3'0	...	3'0	19'3	1'5 1'48	50'4	503'7 4'44	22'2	14'8	17'8	4'4	13'3
Baroda . . .	682	...	...	2'9	2'9	275'7	10'3 1'47	41'1	...	...	10'3	36'7 1'47	29'3	7'3	...	...	2'9	5'9	29'3	752'2 5'87	27'9	10'3	4'4	11'7	2'9
Surat . . .	38	...	...	...	...	263'2	...	184'2	...	...	...	...	26'3	...	...	...	...	...	...	684'2	26'3	...	...	...	...
GROUP VIII.— SOUTH-EAST RAJPUTANA, CENTRAL INDIA AND GUJARAT.]	12,283	8'7 '33	1'8 '98	2'4 '33	'3 '16	237'3 '24	11'4 '65	21'7 '08	'7 '16	2'2 '65	21'3 2'93	24'8 '33	31'8 '49	8'6	...	'9	2'7	11'6 '08	41'0 '08	713'4 9'04	26'0	10'5	10'3	7'2 '08	12'9
Nasik . . .	35	...	28'6 28'57	...	...	85'7	...	...	...	...	28'6 28'57	85'7	85'7	...	...	...	...	...	...	428'6 57'14	28'6	...	...	...	...
Jubbulpore . .	683	...	...	...	...	893'1	2'9 1'46	...	2'9	2'9	10'2 1'46	27'8	48'3	...	...	...	...	8'8	84'9	1247'4 4'39	30'7	24'9	...	19'0	41'0
Saugor . . .	1,064	'9	...	...	...	1,141'9 '94	2'8 '94	'9	2'8	1'9 '94	38'5 2'82	18'8	58'3	10'3	...	'9	15'0	1'9	119'4	1759'4 5'64	54'5	23'5	46'1	20'7	29'1
Sambalpur . .	248	...	...	...	4'0	310'5	4'0 4'03	12'1	...	...	...	8'1	44'4	4'0	...	...	...	20'2	44'4	762'1 4'03	20'2	20'2	...	8'1	16'1

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE,										2. DEATH-RATE, PER 1,000 OF STRENGTH.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.
Kamptee . .	695 {	...	14'4 7'19	1'4	...	307'9	21'6 1'44	149'6	...	2'9 1'44	8'6 1'44	10'1	1'4	14'4 4'32	1'4 1'44	1'4	1'4	5'8 1'44	93'5	884'9 21'58	31'7	15'8	4'3	33'1	40'3
Sitabaldi . .	100 {	30'0	...	10'0	...	300'0	10'0	90'0	...	...	10'0	10'0	40'0	...	...	...	...	10'0	60'0	980'0	20'0	20'0	...	10'0	30'0
Raipur . .	468 {	25'6	2'1 2'14	...	...	147'4	10'7	42'7	2'1	...	6'4	4'3	19'2	4'3	...	...	...	...	153'8	566'2 6'41	21'4	51'3	...	36'3	66'2
Sutna . .	28 {	...	...	...	...	500'0	...	...	...	...	35'7	...	214'3	71'4	...	...	...	35'7	35'7	1285'7	35'7	...	...	...	35'7
Asirgarh . .	48 {	...	...	...	...	291'7	62'5	...	...	...	...	83'3	...	20'8	...	20'8	...	20'8	20'8	895'8	20'8	20'8	...	...	...
Malegaon . .	98 {	...	...	10'2	...	204'1	10'2	...	...	...	20'4	20'4	30'6	51'0	...	...	...	40'8	40'8	785'7 10'20	20'4	30'6	...	10'2	...
Ahmednagar . .	549 {	...	...	...	...	171'2	12'8 1'82	153'0	3'6	...	3'6	7'3 1'82	18'2	1'8	...	...	1'8	3'6	23'7	697'6 3'64	20'0	3'6	5'5	14'6	...
Sirur . .	529 {	...	7'6 5'67	...	...	215'5	52'9	...	3'8	...	3'8	24'6 1'89	64'3	11'3	1'9 1'89	1'9	...	9'5	49'2	886'6 9'45	34'0	17'0	...	5'7	26'5
Poona . .	2,688 {	2'6	...	1'1	...	373'1 37	30'1 37	16'4	1'5	2'2 37	16'0 3'72	27'2 74	37'6 74	4'1	...	1'1	7	10'0	33'5	912'9 7'81	27'5	11'2	7'4	5'2	9'7
Kirkee . .	1,231 {	...	8	...	...	615'8	8'1 81	8'1	8	3'2 81	15'4 1'62	22'7 81	38'2	6'5	...	2'4	3'2	9'7	41'4	1164'1 4'87	26'8	4'1	4'9	20'3	12'2
Satara . .	614 {	...	1'6 1'63	...	...	371'3	4'9 3'26	...	3'3	...	1'6	11'4 3'26	9'8	1'6	...	...	6'5	3'3	44'0	662'9 11'40	24'4	11'4	8'1	11'4	13'0
Belgam . .	974 {	...	...	16'4 1'03	...	82'1	5'1	5'1	7'2	1'0	4'1	23'6	7'2	9'2	...	1'0	...	19'5 1'03	86'2	529'8 4'11	27'7	40'0	...	27'7	18'5
Ellichpur . .	853 {	...	...	...	...	474'8	5'9 1'17	2'3	...	1'2	25'8 8'21	21'1 1'17	32'8	5'9	...	1'2	1'2	2'3	22'3	915'6 11'72	23'4	2'3	...	4'7	15'2
Aurangabad . .	1,332 {	...	...	8	...	174'9	16'5	8	...	...	18'0 75	16'5	14'3	...	...	2'3	1'5	5'3	12'8	479'0 1'50	13'5	8	...	2'3	9'8
Jalna . .	708 {	...	1'4 1'41	...	...	285'3	...	4'2	...	...	18'4 1'41	5'6	8'5	...	...	2'8	1'4	...	28'2	524'0 5'65	19'8	8'5	...	7'1	12'7
Hingoli . .	1,298 {	...	4'6 3'08	...	...	235'7	12'3 2'31	3'1	...	1'5	23'1 6'93	7'7 77	20'0	...	...	1'5	8	6'2	11'6	537'8 13'10	24'7	...	...	4'6	6'9
Mominabad . .	449 {	...	...	...	...	454'3	8'9	6'7	...	...	2'2	11'1	33'4	2'2	...	...	...	11'1	4'5 2'23	844'1 6'68	24'5	2'2	...	...	2'2
Bolarum . .	1,366 {	41'7	7	7	...	119'3	23'4 73	1'5	1'5	7	8'1 73	19'0 73	33'7	2'9	...	7	1'5	6'6	8'1	546'9 3'66	19'0	3'7	...	...	4'4
Raichur . .	743 {	...	1'3	...	...	65'9	4'0	...	...	...	12'1 5'38	14'8	43'1 1'35	...	...	...	6'7	1'3	20'2 1'35	399'7 10'77	14'8	5'4	1'3	12'1 1'35	1'3
Secunderabad . .	3,633 {	1'1	1'4 1'10	2'5	...	234'2 55	6'3 28	2'2	3'6 55	2'2	12'4 1'93	18'4	20'9	3'0	...	2'5	6	14'9	31'7 28	664'5 6'88	28'1	5'8	1'7	8'3 28	16'0
GROUP IX.— DECCAN.	20,434 {	4'1	1'6 98	1'6 05	...	340'4 20	13'2 69	14'8 05	1'9 24	1'4 20	14'1 2'30	18'2 54	28'6 20	4'4 15	1'1 15	1'4	2'1	8'7 10	41'6 15	785'4 7'34	26'2	10'8	4'6	10'8 10	15'5 05
Thana . .	94 {	...	...	...	...	170'2	...	...	...	...	21'3	53'2	85'1	31'9	...	...	...	10'6	21'3	766'0	31'9	10'6	...	...	10'6
Bombay . .	1,255 {	...	...	2'4	...	204'8	61'4 3'19	4'0	8 80	1'6	4'0 80	28'7	77'3 80	26'3 3'19	8	4'8	2'4 80	12'0 80	51'8	781'7 12'75	31'1	19'1	14'3	6'4	12'0
Butcher's Island . .	8 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cannanore . .	661 {	...	...	...	...	78'7	...	7'6	...	1'5	6'1 3'03	9'1	16'6	1'5 1'51	...	3'0	...	19'7 3'03	146'7	473'5 12'10	31'8	54'5	21'2	54'5	16'6
Trichoor . .	92 {	...	...	...	...	54'3	10'9	76'1	...	10'9 10'87	...	...	10'9	...	...	...	...	...	54'3	467'4 10'87	21'7	10'9	...	10'9	32'6
Quilon . .	543 {	...	...	...	...	1'8	...	57'1	...	5'5	1'8	14'7	5'5	...	...	...	20'3	49'7 1'84	362'8 3'68	14'7	3'7	16'6	12'9	16'6	
Trivandrum . .	78 {	...	...	...	...	25'6	...	51'3	...	...	...	64'1	25'6	12'8	...	...	...	...	102'5	653'8	25'6	76'9	...	25'6	...
GROUP X.— WESTERN COAST.	2,731 {	...	...	1'1	...	121'9	28'6 1'46	19'0	4 37	2'6 37	4'4 1'10	22'0	44'7 37	13'9 1'83	4	2'9	1'1 37	14'6 1'10	74'7 37	606'7 9'89	27'3	25'6	15'0	19'8 37	14'3

NATIVE TROOPS, 1896.

TABLE XXVIII—continued.

RATIOS of STATIONS, GROUPS and COMMANDS.

For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.										2 DEATH-RATE, PER 1,000 OF STRENGTH.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.
Bangalore . . .	3,079 {	10'7	1'9	4'5	3	95'5	2'9	38'3	2'3	6	5'5	34'1	33'1	4'9	...	1'0	...	27'6	44'8	655'7	34'8	12'3	7'5	14'3	10'7
Bellary . . .	1,273 {	7'1	...	4'7	...	168'9	1'6	17'3	1'6	8	7'9	11'0	25'9	9'4	...	2'4	...	32'2	48'7	559'3	29'1	13'4	2'4	15'7	17'3
Trichinopoly . . .	1,592 {	...	6'3	...	...	113'7	6	36'4	3'1	1'9	...	16'3	26'4	6	...	...	...	3'1	71'6	587'3	22'0	3'8	36'4	16'3	15'1
Madras . . .	1,178 {	...	...	...	...	90'0	9'3	4'2	7'6	9	6'8	21'2	24'6	5'9	...	3'4	...	16'1	39'9	464'3	22'1	15'3	5'9	10'2	8'5
St. Thomas' Mount. }	390 {	...	...	...	...	82'1	2'6	...	7'7	2'6	5'1	28'2	17'9	...	...	...	...	12'8	69'2	541'0	20'5	5'1	10'3	43'6	10'3
Vizianagram . . .	818 {	...	1'2	2'4	...	157'7	...	...	...	...	6'1	1'2	4'9	2'4	...	...	...	4'9	53'8	583'1	34'2	25'7	2'4	11'0	14'7
Berhampur . . .	406 {	...	7'4	...	...	59'1	14'8	...	2'5	...	7'4	17'2	14'8	4'9	2'5	2'5	...	27'1	41'9	359'6	19'7	4'9	2'5	14'8	19'7
GROUP XI.—SOUTHERN INDIA. }	8,736 {	4'8	2'3	2'5	1	112'3	3'4	23'2	3'1	9	5'2	21'6	25'5	4'5	1	1'3	...	19'5	51'4	577'7	28'5	11'9	11'2	15'3	12'9
Kohima . . .	530 {	103'8	...	...	...	366'0	3'8	...	...	7'5	17'0	30'2	34'0	...	...	3'8	5'7	15'1	64'2	1098'1	50'9	18'9	7'5	18'9	18'9
Darjeeling . . .	133 {	...	...	...	...	203'0	...	...	...	...	15'0	67'7	97'7	37'6	...	...	...	22'6	7'5	736'8	22'6	...	...	7'5	...
Gantak . . .	190 {	...	...	...	...	31'6	...	...	...	...	5'3	21'1	10'5	5'3	...	...	...	21'1	31'6	278'9	15'8	5'3	...	5'3	21'1
Almora . . .	690 {	...	...	1'4	...	78'3	98'6	...	...	1'4	24'6	13'0	11'6	...	1'4	8'7	...	5'8	49'3	404'3	23'2	29'0	...	14'5	5'8
Naini Tal . . .	140 {	...	...	...	...	200'0	14'3	...	...	...	35'7	50'0	50'0	35'7	...	7'1	...	...	228'6	857'1	50'0	157'1	7'1	14'3	50'0
Ranikhet . . .	34 {	...	...	...	...	147'1	29'4	58'8	...	...	...	...	...	29'4	...	...	...	...	...	294'1	...	...	...	...	...
Lansdowne . . .	1,708 {	1'8	...	1'8	...	413'9	17'0	...	6	4'7	24'6	16'4	56'8	39'8	...	6	...	7'6	46'8	1069'7	41'0	19'9	5'3	11'7	10'0
Simla . . .	126 {	...	...	...	...	87'3	23'8	...	...	...	...	7'9	23'8	15'9	...	15'9	...	...	142'9	627'0	23'8	103'2	...	...	39'7
Jutogh . . .	178 {	...	...	...	...	202'2	22'5	...	...	...	28'1	...	22'5	11'2	...	...	...	...	33'7	713'5	22'5	22'5	...	11'2	...
Dharmasala . . .	1,490 {	90'6	...	...	...	373'2	10'1	...	7	5'4	11'4	6'0	12'1	6'0	...	1'3	...	16'8	126'8	1003'4	45'0	26'8	34'9	26'2	38'9
Kangra . . .	32 {	...	...	...	...	250'0	31'2	...	...	...	...	...	...	31'2	...	...	...	...	93'8	625'0	31'2	31'2	31'2	31'2	...
Bakloh . . .	1,345 {	49'1	...	7	7	233'5	51'3	...	...	9'7	17'1	36'4	11'2	5'9	...	3'7	5'2	9'7	107'8	925'7	40'1	18'6	17'1	21'6	50'6
Murree . . .	66 {	...	...	...	...	181'8	...	...	...	...	15'2	15'2	15'2	15'2	...	...	...	...	...	393'9	15'2	...	...	...	...
Khyragully . . .	86 {	...	...	...	...	23'3	...	...	...	...	34'9	23'3	69'8	...	...	...	...	...	69'8	500'0	23'3	34'9	...	11'6	23'3
Baragully . . .	65 {	...	...	...	...	76'9	...	...	...	...	...	...	30'8	...	...	...	...	15'4	30'8	292'3	15'4	15'4	...	...	15'4
Kalabagh . . .	67 {	...	...	...	...	134'3	...	...	...	...	...	...	...	29'9	...	...	...	29'9	74'6	791'0	29'9	44'8	...	29'9	...
Gilgit . . .	204 {	...	...	...	...	107'8	29'4	...	...	...	14'7	9'8	78'4	9'8	...	...	4'9	4'9	...	470'6	19'6	...	...	...	...
Abbottabad . . .	1,925 {	11'4	...	...	...	595'3	19'2	2'6	5	5'7	31'2	49'9	42'1	13'0	...	1'0	2'1	43'1	32'7	1250'4	57'7	8'8	1'6	10'4	11'9
Cherat . . .	72 {	...	...	...	...	69'4	...	...	...	...	27'8	27'8	13'9	...	...	...	...	...	...	180'6	...	...	...	...	...
Kurram . . .	356 {	...	...	...	...	258'4	143'3	...	...	...	30'9	106'7	22'5	11'2	...	...	...	11'2	14'0	831'5	30'9	2'8	5'6	...	5'6
Sarwekai . . .	228 {	...	...	...	...	460'5	4'4	...	...	...	...	...	31'6	30'7	...	...	4'4	39'5	17'5	956'1	26'3	...	8'8	...	8'8
Wana . . .	754 {	15'9	...	...	...	1148'5	27'9	86'2	1'3	2'7	83'6	61'0	74'3	18'6	...	...	2'7	6'6	10'6	1945'6	53'1	5'3	...	5'3	...
Quetta . . .	2,522 {	110'6	...	8	...	486'1	24'6	7'5	...	4	9'5	29'3	54'7	30'5	...	8	2'0	19'0	65'0	1200'2	37'3	6'3	19'4	11'1	28'2

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE, PER 1,000 OF STRENGTH.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhoea.
Loralai . .	1,160 {	...	...	...	...	640'5	19'8	'9	'9	...	20'7	122'4	26'7	25'0	...	'9	23'3	19'0	11'2	1164'7 } 10'34 }	34'5	1'7	2'6	2'6	4'3
Peshin . .	160 {	...	...	6'2	...	306'2	6'2	18'8	12'5	6'2	6'2	56'2	18'8	6'2	...	6'2	18'8	...	43'7	743'8 } 12'50 }	25'0	6'2	...	25'0	12'5
Chaman . .	682 {	46'9 1'47	...	2'9	...	155'4	30'8	...	...	1'5	2'9	11'7 1'47	33'7	11'7	...	...	7'3 1'47	5'9	89'4	593'8 } 5'87 }	23'5	5'9	14'7	8'8	60'1
Fort Sandeman .	1,118 {	...	...	...	...	641'3	12'5	...	...	1'8	21'5 3'58	38'5	74'2	36'7	...	'9	50'1	26'8	8'1	1343'5 } 7'16 }	34'9	...	'9	2'7	4'5
Mount Abu . .	80 {	...	...	...	...	900'0	...	...	...	...	...	12'5	62'5	25'0	...	...	...	...	25'0	1300'0 } ...	12'5	...	...	...	25'0
Ootacamund . .	49 {	...	...	...	...	20'4	...	20'4	...	...	...	20'4	20'4	...	...	...	...	...	...	102'0 } ...	...	...	...	...	...
Shillong and outposts. }	788 {	...	...	...	...	140'9	10'2 1'27	...	1'3	14'0	21'6	27'9	27'9	1'3	...	2'5	1'3	3'8	85'0	635'8 } 1'27 }	31'7	21'6	...	22'8	40'6
Maymyo . .	94 {	...	...	...	...	319'1	...	...	...	...	...	31'9	74'5 10'64	10'6	...	...	...	42'6	53'2	819'1 } 10'64 }	63'8	10'6	...	...	42'6
GROUP XII.— HILL STA- TIONS.	17,071 {	35'4 '23	...	'6 '06	'1	425'6 '18	25'7 1'17	5'6 '06	'5 '12	3'7 1'64	20'9 3'57	36'4 '29	40'9 '41	18'6	'1 '06	1'6 '23	6'7 '12	16'8 '12	56'8 '06	1034'7 } 10'25 }	38'6	14'1	9'4	12'0 '06	21'4
Chitral . .	1,627 {	40'6 3'07	...	...	...	547'0 1'84	45'5 1'84	...	...	3'1 1'84	19'1 4'30	47'3 1'23	173'3 '61	24'0	...	...	36'9 1'84	25'8 '61	11'1	1381'7 } 20'90 }	55'9	4'9	...	2'5	3'7
Malakand . .	2,884 {	'7	...	...	...	187'6	22'5	...	1'0	...	18'4	54'1	60'7	7'3	...	2'8	6'2	20'5	5'2	525'3 } 15'26 }	19'8	1'0	...	2'4	1'7
Marching in Bengal. }	1,050 {	...	1'0 2'86	1'9	...	110'5	2'9	1'9	...	1'0	21'9 1'90	28'6	42'9	4'8	...	1'9	...	8'6	29'5	360'0 } 16'19 }	9'5	12'4	2'9	5'7	8'6
Marching in Punjab. }	1,909 {	1'6	...	1'0	...	61'3	3'1	...	...	'5	15'2 1'05	10'5	8'4	2'6	...	'5	1'0	2'6	5'8	212'7 } 3'67 }	4'2	2'1	1'0	1'6	1'0
Marching in Madras. }	1,145 {	...	...	...	...	116'2 '87	...	'9	...	...	2'6	7'0	7'0	11'4	...	...	...	1'7	22'7	266'4 } 2'62 }	6'1	5'2	5'2	2'6	9'6
Marching in Bombay. }	1,928 {	18'2 '52	'5 '52	...	...	201'8 1'56	17'1 1'56	3'6	...	'5	13'5 1'04	18'2	57'1	11'4 '52	...	...	5'2	2'6	22'3	539'9 } 8'30 }	9'3	2'1	9'9	4'1	6'2
Central India and Rajputana Corps march- ing. }	540 {	...	1'85	...	...	27'8 1'85	...	...	...	...	14'8	1'9	1'9	...	...	...	...	...	1'9	72'2 } 3'70 }	1'9	...	...	...	1'9
Hyderabad Con- tingent march- ing. }	221 {	...	...	...	...	40'7	...	...	...	...	...	13'6	...	...	...	...	...	...	...	72'4 }	...	...	...	...	...
Aden . .	981 {	...	...	...	...	520'9 1'02	3'1 2'04	2'0 1'02	3'1	...	4'1 3'06	46'9	100'9 2'04	18'3	...	...	18'3 1'02	20'4 1'02	25'5	1076'5 } 12'23 }	33'6	3'1	5'1	6'1	11'2
Persian Gulf .	88 {	...	...	...	...	318'2	11'4	22'7	...	...	...	11'4	...	...	...	...	11'4	...	11'4	625'0 }	11'4	...	...	11'4	...
Tochi Column .	1,600 {	...	...	...	...	336'9	10'0	...	'6	1'9	16'9 2'50	85'0 1'25	122'5	33'1	...	...	10'6	22'5	4'4	1114'4 } 5'00 }	37'5	1'9	1'2	...	1'2
Suakin Field Force	1,191 {	...	...	...	...	96'6	10'9	4'2	2'5	1'7	6'7	11'8	85'6	25'2	...	4'2	86'5	16'0	14'3	659'1 } 3'36 }	28'5	3'4	'8	7'6	2'5
Mombasa „	244 {	8'2	...	...	...	1770'5	...	...	...	...	4'1 8'20	16'4	204'9	...	...	...	20'5	12'3	8'2	2315'6 } 8'20 }	28'7	...	...	4'1	4'1
INDIA . .	128,285 {	10'7 '30	1'0 '69	1'2 '10	'1 '04	276'2 '48	16'2 1'07	9'9 '03	1'1 '16	2'5 '65	15'3 3'14	27'5 '58	39'1 '42	10'5 '14	'1 '07	1'2 '05	4'1 '08	16'4 '18	37'1 '06	762'6 } 10'20 }	28'6	9'7 '01	5'7	8'9 '05	12'8 '01
BENGAL . .	26,279 {	7'3 '27	2'0 1'48	'9 '08	'5 '15	301'1 '30	15'8 '72	10'0	'7 '11	3'7 1'18	14'8 1'45	24'9 '34	44'0 '42	14'0 '19	'1 '04	1'3 '11	1'4	15'1 '04	50'7	808'6 } 8'52 }	30'7	15'6	6'8	11'3	16'9
PUNJAB . .	38,824 {	13'1 '57	'2 '10	'9 '13	'1	257'0 '41	24'0 1'83	2'7 '03	'7 '08	3'3 '93	23'4 6'21	34'5 1'11	42'7 '33	10'0 '05	...	1'0 '05	5'0 '18	17'1 '18	23'9 '03	766'1 } 14'37 }	28'9	6'1	3'9	5'6 '03	8'3
MADRAS . .	25,009 {	5'4	1'0 '64	2'0 '04	...	224'5 1'08	4'0 '56	11'7	2'6 '28	1'6 '24	5'2 1'08	22'0 '12	30'1 '68	7'3 '12	...	1'3 '08	'2	25'4 '44	46'9 '16	665'0 } 8'04 }	31'0	12'6 '04	6'3	13'5 '12	14'4
BOMBAY . .	24,707 {	17'6 '32	'8 '53	1'3 '20	'2 '04	352'9 '32	19'1 '97	19'5 '08	1'1 '24	1'5 '32	12'1 2'10	30'9 '61	41'9 '40	13'1 '32	'2 '16	1'3 '04	6'9 '12	11'7 '16	45'0 '04	880'0 } 8'82 }	28'1	9'3	9'6	9'4 '04	16'8
CENTRAL INDIA AND RAJ- PUTANA CORPS. }	5,062 {	8'3 '20	3'8 2'17	1'4	...	215'9 '40	12'8 '79	20'3 '20	'2	1'8 '59	24'1 3'95	21'9 '20	18'6 '40	8'3	...	1'0	1'0	12'6	19'0	630'4 } 10'47 }	20'5	6'5	1'6	3'8	7'1
HYDERABAD CONTINGENT. }	6,970 {	8'2	1'3 '72	'3	...	225'4	11'8 '72	2'2	'3 '14	'6	15'8 3'30	13'8 '43	25'1 '14	1'4	...	1'3	1'7	4'6	14'2 '29	563'4 } 7'03 }	19'2	2'7	'1	3'9 '14	7'5 '14

NATIVE TROOPS, 1896.

TABLE XXIX.

ACTUALS of STATIONS, GROUPS and COMMANDS, on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.											2. DEATHS.														
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.	Filaria Medinensis.	Other Entozoa.
Port Blair. . . .	307 {	...	...	...	...	7	...	4	...	...	...	6	2	...	...	...	...	3	2	70	}	3	...	...	2	...	...
Moulmein	787 {	...	...	...	...	80	2	...	...	...	...	6	42	1	...	...	...	15	17	337	}	16	2	2	11	2	1
Rangoon	1,230 {	...	...	...	...	97	4	2	5	4	3	16	107	13	1	2	...	56	40	699	}	26	13	5	11	11	...
		...	...	...	...	3	...	...	...	...	...	1	1	1	...	...	...	2	...	13	}	...	...	...	...	...	...
GROUP I.—BURMA COAST AND BAY ISLANDS.	2,324 {	...	...	...	...	184	6	6	5	4	3	28	151	14	1	2	...	74	59	1,106	}	46	15	7	24	13	1
		...	...	...	...	5	...	...	...	...	...	1	1	1	...	...	...	2	...	16	}	...	...	...	...	...	...
Thayetmyo	660 {	...	...	...	...	127	...	...	...	...	2	12	45	1	...	1	...	18	32	393	}	19	6	...	6	20	...
		...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	1	6	}	...	1	...	...	...	...
Meiktila	680 {	...	...	...	...	35	2	...	...	...	1	23	12	...	...	1	...	7	31	231	}	13	10	1	15	5	...
		}
Mindat-Sakan	129 {	...	...	...	...	110	3	...	2	...	1	12	27	28	...	2	...	13	1	285	}	8	...	...	1	...	...
		...	...	...	...	...	1	...	1	...	...	...	2	...	...	...	...	1	...	8	}	...	...	...	...	...	...
Myingyan	487 {	3	...	...	...	70	...	14	...	...	...	10	13	5	...	...	...	7	38	280	}	19	17	2	7	12	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	}	...	...	...	...	...	...
Pagan	37 {	...	...	...	...	5	...	...	...	...	...	...	...	1	...	...	...	...	...	9	}	...	...	...	...	...	...
		}
Kan	8 {	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	4	}	...	...	...	...	...	...
		}
Haka	427 {	69	...	...	...	115	4	2	...	1	...	26	8	...	...	1	...	12	4	387	}	11	1	...	...	3	2
		...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2	}	...	...	...	...	...	...
Falam	188 {	...	...	...	...	37	...	...	1	1	...	6	9	4	...	...	...	7	8	107	}	8	1	...	6	1	...
		...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	2	}	...	...	...	...	...	...
Kalemyo	10 {	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	3	}	...	...	...	...	...	...
		}
Kalewa	69 {	...	...	...	...	26	...	...	...	...	...	...	7	...	...	...	...	3	...	50	}	1	...	...	...	...	...
		}
Kyaukmyaung	19 {	...	1	...	...	4	...	...	...	...	...	...	2	...	...	...	...	...	1	9	}	...	...	...	...	1	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	}	...	...	...	...	...	...
Bhamo	801 {	...	...	...	...	637	8	...	7	2	3	45	50	5	...	1	1	28	3	1,073	}	34	1	1	...	1	...
		...	...	...	...	3	1	...	...	...	...	...	1	...	...	...	...	...	...	6	}	...	...	...	...	...	...
Thabeitkyia	50 {	...	...	...	...	14	...	...	...	...	1	...	12	...	...	...	...	...	...	36	}	1	...	...	...	...	...
		}
Shwebo	194 {	...	...	...	...	56	...	...	1	...	...	7	8	2	...	1	1	2	10	153	}	10	4	...	4	2	...
		...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	}	...	...	...	...	...	...
Fort Dufferin	1,682 {	...	2	...	...	440	4	3	...	9	7	24	14	12	...	...	...	17	120	1,093	}	47	42	6	22	50	1
		...	...	...	...	1	...	...	...	3	4	...	...	...	...	...	...	...	...	11	}	...	...	...	...	...	3
Loikaw	88 {	...	...	...	...	192	2	...	...	...	...	7	10	...	...	...	...	12	1	270	}	4	...	...	...	1	...
		...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2	}	...	...	...	...	...	...
Fort Stedman	450 {	16	...	...	...	150	1	2	1	...	4	18	12	6	...	...	...	65	15	394	}	21	1	1	4	9	...
		...	...	...	...	1	1	...	...	...	1	...	1	...	...	...	...	1	...	8	}	...	...	...	...	...	...
Bampon	86 {	...	...	...	...	127	3	...	...	...	3	7	2	3	...	...	...	16	...	195	}	7	...	...	...	...	...
		...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	2	}	...	...	...	...	...	...
Thamakan	31 {	...	...	...	...	9	...	...	...	...	...	...	4	2	...	...	...	1	4	29	}	1	1	...	2	1	...
		}
Toungyi	49 {	...	...	...	...	14	...	...	...	...	...	...	1	1	...	...	...	...	1	24	}	...	...	...	...	1	...
		}
Keng Tung	486 {	...	...	...	...	1,088	7	...	...	...	2	10	26	24	...	1	...	80	28	1,462	}	99	1	7	6	14	...
		...	...	...	...	14	3	...	...	...	1	...	1	1	...	...	...	2	...	24	}	...	...	...	...	...	...
Mong Hsing	51 {	...	...	...	...	37	2	...	...	...	...	4	...	...	...	...	...	...	...	70	}	3	...	...	...	...	...
		}
GROUP II.—BURMA INLAND	6,680 {	88	...	3	...	3,295	36	21	12	13	24	213	263	94	...	8	2	289	297	6,557	}	307	85	18	73	121	3
		...	...	...	...	19	9	...	2	3	7	...	11	1	...	...	...	5	1	74	}	...	1	...	...	...	...

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.															
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.	Filaria Medinensis.	Other Entozoa.
Silchar . . .	445 {	...	...	...	...	183	2	...	1	...	2	13	54	72	...	...	...	31	18	626 1	18	2	1	6	9	...	1
Dibrugarh . . .	321 {	11	...	...	...	187	12	...	...	...	1	10	37	4	...	...	...	7	9	370 ...	11	3	...	4	2	...	...
Manipur . . .	1,009 {	10	37	...	3	324	15	29	...	6	12	27	61	40	...	1	...	68	147	1,043 38	50	31	20	15	81	...	...
GROUP III.—ASSAM .	1,774 {	21	37	...	3	694	29	29	1	6	15	50	152	116	...	1	...	106	174	2,039 39	79	36	21	25	92	...	1
Fort William . . .	927 {	...	1	...	1	415	5	7	2	4	25	51	99	39	...	1	3	39	29	1,071 9	55	6	4	10	9	...	...
Alipore and Ballygunge	634 {	15	...	...	...	225	7	29	...	1	1	31	49	4	...	2	...	14	24	717 2	25	...	3	8	13	...	...
Dum Dum . . .	117 {	...	...	...	...	15	1	...	...	...	1	1	7	2	...	...	1	1	1	50 ...	2	1	...	...	...	...	...
Barrackpore . . .	746 {	...	...	...	...	134	...	95	...	...	11	6	31	4	...	2	...	...	16	478 8	17	7	2	...	7	...	...
Buxa . . .	343 {	...	...	...	...	151	1	...	...	1	1	8	29	2	...	...	...	8	2	290 3	9	...	1	...	1	...	...
Cuttack . . .	346 {	...	1	...	...	19	...	...	...	...	4	5	...	2	...	...	...	6	9	97 2	5	2	3	1	3	...	...
GROUP IV.—BENGAL AND ORISSA. }	3,113 {	15	2	...	1	959	14	131	2	6	43	102	215	53	...	5	4	68	81	2,703 24	112	16	13	19	33	...	...
Doranda . . .	424 {	23	...	1	...	119	...	...	1	...	2	11	19	1	...	...	...	3	3	251 4	8	1	...	2	...	...	...
Dinapore . . .	584 {	6	1	...	...	14	27	...	...	1	...	10	10	...	...	...	...	9	14	189 1	10	10	...	2	2	...	...
Benares . . .	780 {	...	...	...	...	211	8	...	3	1	6	38	22	6	...	...	...	22	36	660 4	27	11	2	11	12	19	1
Fyzabad . . .	1,221 {	1	1	...	...	187	6	...	2	7	6	36	36	10	...	...	1	5	90	850 7	34	28	10	29	23	14	...
Lucknow . . .	1,224 {	34	...	1	...	133	3	...	...	4	10	23	38	5	...	1	2	7	25	539 2	23	13	...	9	3	1	...
Fatehgarh . . .	95 {	...	...	...	...	36	...	...	...	1	2	5	6	4	...	...	...	1	7	96 1	4	5	...	...	2	...	...
Cawnpore . . .	1,186 {	...	...	3	1	203	54	...	...	1	10	35	41	17	...	1	1	16	25	775 10	30	4	1	9	11	5	...
Allahabad . . .	1,266 {	11	2	1	2	193	15	4	1	6	4	22	52	3	...	4	5	18	30	697 8	32	8	1	13	8	...	...
GROUP V.—GAN- GETIC PLAIN AND CHUTIA NAGPUR. }	6,780 {	75	4	5	4	1,096	113	4	7	21	40	180	224	46	...	6	9	81	230	4,057 37	168	80	14	75	61	39	1
Bareilly . . .	1,204 {	19	...	...	...	170	48	...	...	4	3	13	16	4	...	...	...	12	24	597 5	23	13	...	7	4	...	...
Dehra Dun . . .	1,517 {	1	7	3	...	366	45	91	...	18	12	31	21	10	...	3	1	36	98	1,266 22	46	26	4	29	39	...	...
Roorkee . . .	526 {	1	...	...	...	78	5	...	...	...	7	6	5	4	...	1	...	4	21	263 3	13	6	2	4	9	...	...
Meerut . . .	1,244 {	...	...	1	3	505	12	...	2	8	25	47	42	5	1	...	1	12	76	1,373 8	41	32	17	9	18	21	...

NATIVE TROOPS, 1896.

TABLE XXIX—continued.

ACTUALS of STATIONS, GROUPS, and COMMANDS, on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.															
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.	Filaria Medinensis.	Other Entozoa.
Delhi	708 {	...	...	4...	...	227	19	...	...	2	21	20	6	1	...	1	1	8	7	505 12	14	...	2	4	1	2	...
Umballa	1,269 {	...	...	2...	...	162	72	...	...	1	22	10	17	...	...	...	...	9	29	592 4	25	5	7	6	11	2	...
Ludhiana	36 {	...	...	...	...	13	1	...	...	...	...	4	1	...	...	...	...	1	3	45	1	3	...	...	...	...	...
Jullundur	910 {	...	...	4...	...	114	3	...	2	2	14	11	16	1	...	1	10	14	10	419 11	17	3	2	4	1	...	...
Ferozepore	1,672 {	...	...	2...	...	110	25	...	3	4	13	42	29	5	...	1	6	21	40	824 20	38	7	9	10	14	2	...
Sialkot	1,907 {	...	...	5...	...	199	24	1	2	11	54	31	27	7	...	2	1	17	19	926 30	38	10	...	3	6	7	...
Amritsar	155 {	...	...	...	...	15	...	...	...	...	2	1	2	...	...	...	...	...	3	65 1	3	...	...	2	1	...	...
Meean Meer	1,567 {	...	...	3...	...	124	55	3	...	3	40	49	22	5	...	1	...	18	39	815 16	38	9	13	9	8	2	...
Jhelum	1,289 {	...	...	...	...	180	63	...	1	8	6	45	15	13	...	...	4	14	35	790 23	37	5	4	8	18	...	...
Rawalpindi	2,098 {	...	3	3...	...	379	10	1	2	11	36	60	81	13	...	4	3	57	58	1,338 23	56	23	3	14	18	8	...
Attock	74 {	...	...	...	...	22	1	...	...	...	1	3	10	1	...	...	...	1	...	54 1	2	...	...	...	...	...	...
GROUP VI.—UPPER SUB-HIMALAYAN. }	16,176 {	21	10	27	3	2,664	383	96	12	72	256	373	310	69	1	14	27	224	462	9,872 179	391	142	63	109	148	44	...
		1	9	1	...	5	25	...	...	21	56	20	4	1	1	...	2	2	...			...	...	...	...	...	...
Bikanir	39 {	...	...	...	...	2	2	...	...	...	...	...	2	...	...	...	...	...	1	10	...	...	1	...	...	...	...
Mooltan	904 {	...	...	2...	...	208	48	...	...	1	31	31	48	4	...	2	3	42	12	742 13	26	4	...	4	4	1	...
Nowshera	1,112 {	...	...	1...	...	230	28	1	1	5	41	61	7	8	...	2	...	18	11	770 42	26	1	2	3	5	1	...
Peshawar	2,812 {	57	...	4	1	453	45	...	4	8	71	45	55	16	...	1	5	17	60	1,397 60	57	16	18	5	21	6	...
Fort Jamrud	140 {	...	...	...	...	4	4	...	...	...	1	1	7	1	...	...	...	1	1	26	...	...	...	1	...	...	...
Mardan	925 {	...	...	1...	...	242	8	...	...	6	26	60	36	29	...	3	4	9	4	751 14	25	...	...	3	1	...	...
Kohat and outposts	2,442 {	1	3	...	...	859	54	...	1	12	67	82	145	34	...	2	14	30	36	2,268 47	71	2	1	14	19	23	...
Edwardesabad and outposts. }	1,396 {	88	...	4	...	603	59	21	3	5	71	64	74	28	...	...	5	53	16	1,834 22	58	6	...	2	8	19	...
Jandola	193 {	...	...	...	...	67	3	...	...	...	2	6	25	2	...	...	1	3	2	174 4	5	...	...	...	2	1	...
Khajuri Kach	329 {	...	...	...	...	87	4	...	...	...	4	14	40	1	...	1	3	3	3	218 2	6	1	...	1	1	...	...
Dera Ismail Khan and outposts. }	1,407 {	35	...	...	...	422	38	7	1	2	49	58	47	21	1	...	17	45	17	1,365 27	44	1	4	5	7	11	...
Dera Ghazi Khan and outposts. }	1,176 {	22	...	...	...	207	16	2	...	7	29	26	43	5	...	...	5	7	23	774 14	27	10	...	10	3	1	...
Sibi	146 {	1	...	...	...	140	2	2	...	...	1	1	9	2	...	1	...	2	7	216 3	4	1	...	...	6	...	...
Jacobabad	664 {	...	...	...	...	263	3	...	...	...	10	27	10	4	...	...	...	3	21	609 6	22	2	9	1	9	8	...
Hyderabad	464 {	...	...	...	...	98	5	3	...	1	5	17	28	...	1	4	...	8	38	290 4	14	9	6	12	11	...	...
Kurrachee	628 {	...	...	...	...	373	8	1	...	1	2	19	22	4	...	1	3	8	30	683 3	19	10	1	3	16	...	...
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA. }	14,776 {	204	3	12	1	4,258	327	37	10	48	410	512	598	159	2	17	60	249	282	12,127 261	405	64	41	64	113	71	...
		17	1	5	...	8	24	...	2	5	136	19	4	...	1	...	...	2	...			...	...	...	...	...	...

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.																2. DEATHS.										
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.	Filaria Medinensis.	Other Entozoa.	
Agra	689 {	...	...	1	1	217	5	2	...	2	20	15	63	23	...	...	...	6	25	516	5	18	8	1	4	12	5	...
Jhansi	626 {	...	1	3	...	275	...	...	...	...	3	6	55	5	...	1	...	3	13	588	3	19	8	...	3	2	...	...
Nowgong	1,058 {	...	1	...	...	239	7	...	...	...	35	20	43	2	...	...	1	9	112	733	3	29	27	40	15	30	2	...
Nasirabad	481 {	...	...	1	...	64	1	...	1	...	10	9	19	...	...	...	...	5	22	254	4	12	4	7	3	8	18	...
Neemuch	397 {	2	...	4	...	187	4	4	4	2	8	4	9	7	...	...	2	16	8	455	5	18	1	1	2	4	3	...
Indore	200 {	...	...	...	...	32	3	1	...	...	5	16	14	2	...	3	...	1	13	124	1	5	5	2	1	5	...	...
Sehore and outposts	816 {	...	6	...	...	351	11	89	...	...	6	7	25	6	...	...	2	13	28	708	9	17	16	...	7	5	2	...
Mhow	1,079 {	42	...	7	...	241	3	8	3	1	26	22	34	11	...	...	3	11	75	842	11	39	6	34	12	23	11	...
Sadra	58 {	...	...	...	...	14	...	2	...	1	2	4	1	...	...	...	...	...	...	31	1	1	...	...	...	...	...	...
Agar	331 {	...	2	1	...	68	5	3	...	...	...	3	5	2	...	...	1	4	7	181	3	6	2	...	2	3	2	...
Goonā	372 {	19	3	...	...	120	1	3	...	...	8	4	14	3	...	1	1	18	7	326	7	11	...	3	2	2	...	...
Sirdarpore	329 {	5	8	5	...	98	2	4	...	1	11	26	5	3	...	1	...	5	4	358	2	9	1	...	1	2	30	...
Barwani	75 {	...	...	...	...	9	...	...	...	2	3	3	...	1	...	...	...	...	...	18	3	1	...	...	...	...	...	...
Jhabwa	40 {	...	...	...	...	4	...	...	...	...	3	1	...	...	...	...	...	...	...	23	1	1	...	...	...	...	6	...
Alirajpore	38 {	...	...	...	...	5	...	...	...	...	...	1	1	...	...	...	...	...	...	14	...	...	...	...	...	...	2	...
Kherwara	351 {	16	...	...	...	39	...	...	...	1	29	18	2	...	...	...	...	...	...	293	5	16	...	...	...	...	36	...
Oodeypore	62 {	2	...	...	...	8	...	...	...	...	1	3	1	1	...	...	...	...	...	26	2	1	...	...	...	...	2	...
Kotra	134 {	...	...	...	...	29	1	...	...	...	2	3	1	...	...	...	...	4	3	72	...	3	...	...	3	...	1	...
Erinpura	547 {	...	...	...	...	101	12	...	...	1	22	9	8	19	...	...	1	11	5	323	10	13	1	1	1	2	2	...
Deoli	566 {	...	...	...	...	58	17	1	...	...	2	3	15	1	...	2	...	8	22	274	3	8	6	4	2	10	13	...
Jeypore	60 {	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1	9	...	1	...	...	...	1	...	...
Jhalawar	86 {	...	...	...	...	18	1	1	...	...	4	3	1	...	...	...	...	...	5	56	...	1	3	...	...	2	...	...
Ajmere	529 {	...	...	1	...	91	13	...	1	3	21	25	8	2	...	1	...	1	9	338	6	12	3	...	1	5	8	...
Beawar	46 {	...	...	...	...	3	...	...	...	1	1	...	...	2	...	...	...	...	1	15	1	1	...	...	...	1	...	...
Sambhar	21 {	...	...	...	...	2	...	...	...	...	1	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...
Deesa	1,095 {	...	...	1	...	132	16	8	...	4	9	22	25	4	...	...	3	11	29	509	11	17	13	2	6	8	3	...
Ahmedabad	469 {	...	1	3	1	141	24	1	...	4	8	39	4	3	...	...	1	7	42	461	7	16	3	17	11	11	8	...
Rajkot	332 {	...	...	...	...	152	4	30	...	2	4	5	6	2	...	...	3	5	18	333	2	8	5	...	2	11	11	...
Bhuj	675 {	21	...	...	...	19	3	73	...	2	11	9	11	2	...	2	13	1	34	340	3	15	10	12	3	9	5	...
Baroda	682 {	...	...	2	2	188	7	28	...	...	7	25	20	5	...	...	2	4	20	513	4	19	7	3	8	2	4	...
Surat	38 {	...	...	...	...	10	...	7	...	...	...	...	1	...	...	...	...	...	...	26	...	1	...	...	...	...	...	...
GROUP VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	12,283 {	107	22	29	4	2,915	140	267	9	27	262	305	391	106	...	11	33	143	503	8,763	111	319	129	127	89	158	174	...

NATIVE TROOPS, 1896.

TABLE XXIX—continued.

ACTUALS of STATIONS, GROUPS, and COMMANDS on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.																2. DEATHS.									
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.	Filaria Medinensis.	Other Entozoa.
Nasik . . .	35 {	...	1	...	...	3	...	...	...	...	1	3	3	...	...	...	...	...	...	15 2	1	...	...	...	...	...	...
Jubbulpore . . .	683 {	...	...	...	...	610	2	...	2	2	7	19 1	33	...	...	...	...	6	58	852 3	21	17	...	13	28	...	...
Saugor . . .	1,064 {	1	...	...	...	1,215 1	3 1	1	3	2	41 3	20	62	11	...	1	16	2	127	1,872 6	58	25	49	22	31	4	...
Sambalpur . . .	248 {	...	...	1	...	77	1 1	3	...	...	...	2	11	1	...	...	...	5	11	189 1	5	5	...	2	4	...	...
Kamptee . . .	695 {	...	10 5	1	...	214	15 1	104	...	2 1	6 1	7	1	10 3	1	1	1	4 1	65	615 15	22	11	3	23	28	2	...
Sitabaldi . . .	100 {	3	...	1	...	30	1	9	...	...	1	1	4	...	...	...	...	1	6	98	2	2	...	1	3	...	1
Raipur . . .	468 {	12	1	...	...	69	5	20	1	...	3	2	9	2	...	...	...	...	72	265 3	10	24	...	17	31	...	...
Sutna . . .	23 {	...	...	...	...	14	...	...	...	...	1	...	6	2	...	...	...	1	1	36	1	...	...	...	1	...	...
Asirgarh . . .	48 {	...	...	...	...	14	3	...	...	...	...	4	...	1	...	1	...	1	1	43	1	1	...	...	...	...	...
Malegaon . . .	98 {	...	...	1	...	20	1	...	...	...	2	2	3	5	...	...	...	4	4	77 1	2	3	...	1	...	2	...
Ahmednagar . . .	549 {	...	...	...	...	94	7	84 1	2	...	2	4 1	10	1	...	...	1	2	13	383 2	11	2	3	8	...	10	...
Sirur . . .	529 {	...	4 3	...	...	114	28	...	2	...	2	13 1	34	6	1	1	...	5	26	469 5	18	9	...	3	14	8	1
Poona . . .	2,688 {	7	...	3	...	1,003 1	81 1	44	4	6 1	43 10	73 2	101 2	11	...	3	2	27	90	2,454 21	74	30	20	14	26	24	2
Kirkee . . .	1,231 {	...	1	...	...	758	10 1	10	1	4 1	19 2	28 1	47	8	...	3	4	12	51	1,433 6	33	5	6	25	15	21	...
Satara . . .	614 {	...	1	...	...	228	3 2	...	2	...	1	7 2	6	1	...	...	4	2	27	407 7	15	7	5	7	8	7	...
Belgam . . .	974 {	...	...	16	...	80	5	5	7	1	4	23	7	9	...	1	...	19 1	84	516 4	27	39	...	27	18	3	...
Ellichpur . . .	853 {	...	...	...	...	405	5 1	2	...	1	22 7	18 1	28	5	...	1	1	2	19	781 10	20	2	...	4	13	...	...
Aurangabad . . .	1,332 {	...	...	1	...	233	22	1	...	...	24 1	22	19	...	...	3	2	7	17	638 2	18	1	...	3	13	1	...
Jalna . . .	708 {	...	1	...	...	202	...	3	...	...	13 1	4	6	...	...	2	1	...	20	371 4	14	6	...	5	9	1	...
Hingoli . . .	1,298 {	...	6 4	...	...	306	16 3	4	...	2	30 9	10 1	25	...	...	2	1	8	15	698 17	32	...	...	6	9	6	1
Mominabad . . .	449 {	...	...	...	...	204	4	3	...	...	1	5	15	1	...	...	...	5	2 1	379 3	11	1	...	...	1	5	...
Bolarum . . .	1,366 {	57	1	1	...	163	32 1	2	2	1	11 1	26 1	46	4	...	1	2	9	11	747 5	26	5	...	...	6	4	...
Raichur . . .	743 {	...	1	...	...	49	3	...	...	...	9 4	17 1	32	...	...	...	5	1	15 1	297 8	11	4	1	9	1	4	...
Secunderabad . . .	3,633 {	4	5	9	...	851 2	23 1	8	13 2	8	45 7	67	76	11	...	9	2	54	115 1	2,414 25	102	21	6	30 1	58	24	...
GROUP IX.—DECCAN .	20,434 {	84	32 20	33 1	1	6,956 4	270 14	303 1	39 5	29 4	288 47	371 11	585 4	89 3	2 3	29	42	177 2	850 3	16,049 150	536	220	93	220 2	317 1	126	5

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.															
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.	Filaria Medinensis.	Other Entozoa.
Thana . . .	94 {	...	...	...	...	16	...	...	...	...	2	5	8	3	...	...	...	1	2	72 {	3	1	...	...	1	...	...
Bombay . . .	1,255 {	...	...	3	...	257	77	5	1	2	5	36	97	33	1	6	3	15	65	981 {	39	24	18	8	15	...	1
Butcher's Island .	8 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cannanore . . .	661 {	...	...	...	...	52	...	5	...	1	4	6	11	1	...	2	...	13	97	313 {	21	36	14	36	11	...	...
Trichoor . . .	92 {	...	...	...	...	5	1	7	...	1	...	...	1	...	...	...	...	...	5	43 {	2	1	...	1	3	...	...
Quilon . . .	543 {	...	...	...	...	1	...	31	...	3	1	8	3	...	...	...	...	11	27	197 {	8	2	9	7	9	2	...
Trivandrum . . .	78 {	...	...	...	...	2	...	4	...	...	...	5	2	1	...	...	...	...	8	51 {	2	6	...	2	...	...	...
GROUP X.—WEST-ERN COAST.	2,731 {	...	...	3	...	333	78	52	1	7	12	60	122	38	1	8	3	40	204	1,657 {	75	70	41	54	39	2	1
		...	...	...	...	...	4	...	1	1	3	...	1	5	...	...	1	3	1	27 {	...	...	...	1	...	...	...
Bangalore . . .	3,079 {	33	6	14	1	294	9	118	7	2	17	105	102	15	...	3	...	85	138	2,019 {	107	38	23	44	33	5	2
Bellary . . .	1,273 {	9	...	6	...	215	2	22	2	1	10	14	33	12	...	3	...	41	62	712 {	37	17	3	20	22	4	...
Trichinopoly . . .	1,592 {	...	10	...	...	181	1	58	5	3	...	26	42	1	...	...	...	5	114	935 {	35	6	58	26	24	3	1
Madras . . .	1,178 {	...	...	...	...	106	11	5	9	1	8	25	29	7	...	4	...	19	47	547 {	26	18	7	12	10	...	1
St. Thomas' Mount .	390 {	...	...	...	...	32	1	...	3	1	2	11	7	...	...	...	...	5	27	211 {	8	2	4	17	4	...	...
Vizianagram . . .	818 {	...	1	2	...	129	...	...	...	...	5	1	4	2	...	...	...	4	44	477 {	28	21	2	9	12	...	...
Berhampur . . .	406 {	...	3	...	...	24	6	...	1	...	3	7	6	2	1	1	...	11	17	146 {	8	2	1	6	8	...	...
		...	2	...	...	...	...	...	...	...	1	1	2	...	1	...	...	...	...	8 {	...	...	...	...	...	...	...
GROUP XI.—SOUTH-ERN INDIA.	8,736 {	42	20	22	1	981	30	203	27	8	45	189	223	39	1	11	...	170	449	5,047 {	249	104	98	134	113	12	4
		...	12	...	...	...	4	...	3	2	11	2	3	...	1	1	...	1	1	67 {	...	...	...	1	...	...	...
Kohima . . .	530 {	55	...	...	...	194	2	...	...	4	9	16	18	...	...	2	3	8	34	582 {	27	10	4	10	10	...	2
Darjeeling . . .	133 {	...	...	...	...	27	...	...	...	...	2	9	13	5	...	...	...	3	1	98 {	3	...	...	1	...	...	...
Gantak . . .	190 {	...	...	...	...	6	...	...	...	...	1	4	2	1	...	...	...	4	6	53 {	3	1	...	1	4	...	...
Almora . . .	690 {	...	...	1	...	54	68	...	...	1	17	9	8	...	1	6	...	4	34	279 {	16	20	...	10	4	...	1
Naini Tal . . .	140 {	...	...	...	...	28	2	...	...	...	5	7	7	5	...	1	...	...	32	120 {	7	22	1	2	7	...	...
Ranikhet . . .	34 {	...	...	...	...	5	1	2	...	...	...	...	...	1	...	...	...	...	...	10 {	...	...	...	...	...	...	...
Lansdowne . . .	1,708 {	3	...	3	...	707	29	...	1	8	42	28	97	68	...	1	...	13	80	1,827 {	70	34	9	20	17	...	1
Simla . . .	126 {	...	...	...	...	11	3	...	...	...	...	1	3	2	...	2	...	...	18	79 {	3	13	...	...	5	...	...
Jutogh . . .	178 {	...	...	...	...	36	4	...	...	...	5	...	4	2	...	...	...	...	6	127 {	4	4	...	2	...	...	...
Dharmasala . . .	1,490 {	135	...	...	...	556	15	...	1	8	17	9	18	9	...	2	...	25	189	1,495 {	67	40	52	39	53	...	...
Kangra . . .	32 {	...	...	...	...	8	1	...	...	...	...	...	...	1	...	...	...	...	3	20 {	1	1	1	1	...	...	...

NATIVE TROOPS, 1896.

TABLE XXIX—continued.

ACTUALS of STATIONS, GROUPS, and COMMANDS on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.																
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.	Filaria Medinensis.	Other Entozoa.	
Bakloh	1,345	66	...	1	1	314	69	...	...	13	23	49	15	8	...	5	7	13	145	1,245	54	25	23	29	68	...	2
Murree	66	...	...	...	...	12	...	...	...	...	1	1	1	1	...	...	...	...	...	26	1	...	...	...	...	...	...
Khyragully	86	...	...	...	...	2	...	...	...	3	2	6	...	...	...	...	...	6	43	2	2	3	...	1	2	...	...
Baragnlly	65	...	...	...	...	5	...	...	...	...	...	...	2	...	...	...	1	2	19	1	1	...	...	...	1	...	...
Kalabagh	67	...	...	...	...	9	...	...	...	...	...	...	...	2	...	...	2	5	53	...	2	3	...	2	...	...	...
Gilgit	204	...	...	...	...	22	6	...	...	3	2	16	2	...	...	1	1	...	96	2	4	...	...	...	...	...	...
Abbottabad	1,925	22	...	...	...	1,146	37	5	1	11	60	96	81	25	...	2	4	83	63	2,407	111	17	3	20	23	7	...
Cherat	72	...	...	...	...	5	...	...	...	2	2	1	...	...	...	...	...	...	13	1	...	...	...	...	...	...	...
Kurram	356	...	...	...	...	92	51	...	...	11	38	8	4	...	...	...	4	5	296	12	11	1	2	...	2	...	...
Sarwekai	228	...	...	...	...	105	1	...	...	...	...	30	7	...	...	1	9	4	218	3	6	...	2	...	2	...	...
Wana	754	12	866	21	65	1	2	63	46	56	14	2	5	8	1,467	22	40	4	...	4	...	3	1
Quetta	2,522	279	...	2	...	1,226	62	19	...	1	24	74	138	77	...	2	5	48	164	3,027	94	16	49	28	71	23	...	
Loralai	1,160	743	23	1	1	...	24	142	31	29	...	1	27	22	13	1,351	12	40	2	3	3	5	7	...
Peshin	160	...	...	1	...	49	1	3	2	1	1	9	3	1	...	1	3	...	7	119	2	4	...	4	2	...	...
Chaman	682	32	...	2	...	106	21	1	2	8	23	8	5	4	61	405	4	16	4	10	6	41	4	...
Fort Sandeman	1,118	717	14	2	24	43	83	41	...	1	56	30	9	1,502	8	39	...	1	3	5	5	1
Mount Abu	80	72	1	5	2	2	104	...	1	2
Ootacamund	49	1	...	1	1	1	5
Shillong and outposts	788	111	8	...	1	11	17	22	22	1	...	2	1	3	67	501	1	25	17	...	18	32
Maymyo	94	30	3	7	1	4	5	77	1	6	1	4
GROUP XII.—HILL STATIONS.	17,071	604	...	10	1	7,265	439	96	8	63	356	622	699	317	1	28	115	286	969	17,664	660	240	160	204	365	49	8	
Chitral	1,627	66	890	74	5	31	77	282	39	60	42	18	2,248	34	91	8	...	4	6	...	4
Malakand	2,884	2	541	65	...	3	...	53	156	175	21	...	8	18	59	15	1,515	44	57	3	...	7	5

STATIONS, COMMANDS, ETC.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.																
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Ulcer of the penis.	Secondary Syphilis.	Gonorrhœa.	Filaria Medinensis.	Other Entozoa.	
Marching in Bengal .	1,050	...	1 3	2	...	116	3	2	...	1	23 2	30	45 1	5	...	2	...	9	31	378 17	10	13	3	6	9	...	...
Marching in Punjab .	1,909	3	...	2	...	117	6	...	...	1	29 2	20	16	5	...	1	2	5	11	406 7	8	4	2	3	2	1	...
Marching in Madras .	1,145	...	...	...	...	133	...	1	...	...	3	8	8	13	...	...	...	2	26	305 3	7	6	6	3	11	...	...
Marching in Bombay .	1,928	35 1	1 1	...	...	389 3	33 3	7	...	1	26 2	35	110	22 1	...	...	10	5	43	1,041 16	18	4	19	8	12	4	...
Central India and Rajputana Corps marching.	540	...	...	...	...	15 1	...	...	...	...	8	1	1	...	...	...	...	...	1	39 2	1	...	...	...	1	...	...
Hyderabad Contingent marching.	221	...	...	...	...	9	...	...	...	...	...	...	3	...	...	...	...	...	...	16	...	...	...	...	...	...	...
Aden . . .	981	...	...	...	...	511 1	3 2	2 1	3	...	4 3	46	99 2	18	...	...	18	20 1	25	1,056 12	33	3	5	6	11	...	...
Persian Gulf . .	88	...	...	...	...	28	1	2	...	...	...	1	...	...	...	...	1	...	1	55	1	...	...	1	...	...	...
Tochi Column . .	1,600	...	...	...	...	539	16	...	1	3	27 4	136 2	196	53	...	...	17	36	7	1,783 8	60	3	2	...	2	4	...
Suakin Field Force .	1,191	...	...	...	...	115	13	5	3	2	8	14	102	30	...	5	103	19	17	785 4	34	4	1	9	3	3	...
Mombasa „ „ .	244	2	...	...	...	432	...	...	...	...	1 2	4	50	...	...	...	5	3	2	565 2	7	...	...	1	1	1	...
INDIA	*Re- main- ing from 1895. Ad- mitted. Died. Died out of hospi- tal.	126	4	16	4	698	98	21	5	24	363	350	115	33	5	8	22	111	425	4,002	3,674	164	56	83	122	6	...	
		128,286	1,369	132	148	19	35,435	2,079	1,264	143	317	1,967	3,533	5,020	1,346	8	156	529	2,107	4,757		97,833	1,249	734	1138	1,636	534	31
		38	88	13	5	61	137	4	20	84	403	74	54	18	9	7	10	23	8	1,309 81		1	...	6	1	...	...
BENGAL . . .	26,279	191 7	53 39	23 2	12 4	7,913 8	415 19	262 ...	19 3	96 31	389 38	654 9	1,155 11	368 5	2 1	33 3	37 ...	398 1	1,332 ...	21,248 224	806	411	180	297	444	73	6	
PUNJAB . . .	38,824	509 22	6 4	34 5	2	9,976 16	930 71	106 1	27 3	129 36	908 241	1,339 43	1,657 13	389 2	1 2	40 2	193 7	665 7	926 1	29,743 558	1,121	236	150	216	324	99	8	
MADRAS . . .	25,009	134 ...	25 16	50 1	1	5,615 27	101 14	292 ...	64 7	39 6	129 27	551 3	753 17	183 3	1 2	33 1	4 ...	636 11	1,172 4	16,631 201	775	316 1	158	337	361	45	7	
BOMBAY . . .	24,707	434 8	20 13	32 5	4 1	8,720 8	473 24	481 2	27 6	38 8	300 52	764 15	1,034 10	324 8	4 4	31 1	170 3	290 4	1,113 1	21,743 218	694	230	236	232	415	188	9	
CENTRAL INDIA AND RAJPUTANA CORPS.	5,062	42 1	19 11	7	...	1,093 2	65 4	103 1	1 ...	9 3	122 20	111 1	94 2	42 ...	...	5 ...	5 ...	64 ...	96 ...	3,191 53	104	33	8	19	36	104	...
HYDERABAD CON- TINGENT.	6,970	57 ...	9 5	2	...	1,571 ...	82 5	15 ...	2 1	4 ...	110 23	96 3	175 1	10 ...	...	9 ...	12 ...	32 ...	99 2	3,927 49	134	19	1	27	52	21	1

* Remaining + admitted = total treated. Remaining + admitted + died out of hospital = total cases.

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TABLE XXIX—concluded.

ACTUALS of GROUPS and COMMANDS on which the ratios in Tables XXVI—XXVIII have been calculated.

GROUPS AND COMMANDS.	1. AVERAGE STRENGTH.						2. CONSTANTLY SICK.						TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
I.—BURMA COAST AND BAY ISLANDS.	2,401 43	2,394 39	2,386 39	2,368 49	2,304 41	2,295 46	2,278 47	2,256 46	2,264 43	2,290 47	2,320 54	2,326 52	27,882 546
II.—BURMA INLAND	7,212 274	7,435 251	6,962 225	6,403 212	6,199 207	6,433 263	6,448 341	6,448 493	6,521 448	6,592 377	6,673 320	6,834 272	80,160 3,683
III.—ASSAM	1,957 66	2,005 58	1,891 58	1,676 78	1,673 76	1,709 88	1,711 98	1,704 92	1,687 79	1,565 84	1,807 80	1,905 90	21,290 947
IV.—BENGAL AND ORISSA	3,644 147	3,627 182	3,351 122	2,808 80	2,712 75	2,707 76	2,720 110	2,739 97	2,848 88	3,148 88	3,431 129	3,617 153	37,352 1,347
V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	7,849 199	7,822 175	7,055 167	5,932 146	5,895 140	6,045 131	6,066 167	6,095 153	6,149 180	7,065 176	7,605 196	7,785 184	81,363 2,014
VI.—UPPER SUB-HIMALAYAN	18,381 588	18,608 490	18,195 378	15,793 329	13,520 270	13,950 265	13,717 308	13,721 349	14,022 359	16,509 438	18,877 492	18,816 426	194,109 4,692
VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY AND NORTH-WESTERN RAJPUTANA.	16,064 647	15,657 442	15,108 357	13,422 306	13,626 284	13,491 284	13,557 335	13,557 373	13,773 385	15,548 454	17,021 522	16,492 466	177,316 4,855
VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA AND GUJARAT.	11,158 366	12,734 336	13,736 334	11,577 319	11,187 250	11,486 233	11,709 239	11,681 280	11,905 343	12,843 369	13,507 389	13,878 372	147,401 3,830
IX.—DECCAN	23,156 629	20,994 551	21,220 529	19,036 502	18,696 508	19,077 475	19,410 518	19,344 509	19,755 533	21,472 601	21,542 560	21,512 520	245,214 6,435
X.—WESTERN COAST	2,999 74	2,989 81	2,955 78	2,406 70	2,383 63	2,414 56	2,528 71	2,555 73	2,561 81	2,850 93	3,050 79	3,085 77	32,775 896
XI.—SOUTHERN INDIA	8,741 278	8,849 276	8,723 251	8,587 255	8,735 238	8,450 236	8,424 249	8,559 225	9,017 251	9,246 235	8,947 240	8,555 250	104,833 2,984
XII.—HILL STATIONS	16,689 645	17,275 553	17,452 586	18,255 718	16,963 656	16,655 631	17,189 673	16,899 701	16,901 708	17,157 717	16,476 700	16,936 628	204,847 7,916
INDIA	137,836 4,328	138,875 3,769	134,201 3,332	123,105 3,258	118,742 3,045	118,798 3,097	118,597 3,530	119,109 3,829	121,223 3,924	131,302 4,099	138,426 4,109	139,218 3,770	1,539,432 44,090
BENGAL	27,650 854	28,247 801	27,860 762	24,596 757	23,399 691	24,067 671	23,973 749	24,123 750	24,475 815	27,324 864	29,573 992	30,062 966	315,349 9,672
PUNJAB	42,117 1,539	42,984 1,172	41,293 954	39,150 891	36,657 860	34,842 895	34,417 1,085	34,544 1,205	35,252 1,181	39,061 1,244	42,222 1,277	43,354 1,149	465,893 13,452
MADRAS	27,790 802	27,244 770	25,650 710	24,413 695	23,632 681	23,458 707	23,755 802	23,746 915	24,116 894	24,984 819	25,261 767	26,054 737	300,103 9,299
BOMBAY	26,988 785	27,173 746	26,168 654	23,399 686	23,606 616	22,461 589	23,003 655	23,094 687	23,345 712	24,726 747	26,060 757	26,456 689	296,479 8,323
CENTRAL INDIA AND RAJPUTANA CORPS.	5,649 168	5,614 122	5,372 102	4,500 84	4,401 61	4,515 70	4,592 69	4,561 92	4,816 107	5,353 144	5,803 126	5,573 100	60,749 1,245
HYDERABAD CONTINGENT	7,642 180	7,613 158	7,452 145	6,311 135	6,196 106	6,279 86	6,422 114	6,604 118	6,786 141	7,460 158	7,445 137	7,432 128	83,644 1,606

TABLE XXX.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

The ratios of sickness and mortality will be found in Table XXVIII.

STATION.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Fort William	Bengal	Mumps and dysentery were especially prevalent amongst the 18th Bengal Infantry from October to the present date. Dysentery was probably aggravated by chill during the encampment of the regiment on the <i>maidan</i> , where it had been isolated in consequence of the epidemic of mumps, a disease which is always endemic here. The municipal filtered water-supply is intermittent, but of excellent quality. Another supply of water is obtained from the Havildar tank on the <i>maidan</i> . This water is supposed to be used only for watering the roads, flushing drains, etc., but undoubtedly is drunk both by the Europeans and the natives at times, and is a grave source of danger, as it can be, and has been, contaminated during the present year, the cholera bacillus having been found in it. Unfortunately the municipality cannot at present supply water for all purposes, so that at present there appears to be no remedy for this sanitary defect, unless the water is passed through a Pasteur filter. There was no overcrowding. The ravelin quarters are low lying and close to the <i>cunette</i> , and are feverish during the rains. Cholera, which is always endemic here, though it raged fearfully amongst the native population, scored only two attacks amongst the troops. The main sanitary defects are the dual water-supply referred to above, and the method of disposing of the liquid sewage by throwing it into the <i>cunette</i> , near the river.
Dum-Dum	"	The prevalence of malarial fevers was due to the swampy state of the surrounding land. One Silchar incinerator disposes of the filth of 1,800 persons. A large Campion incinerator is being erected and will be completed and ready for use in January 1897. This will be capable of disposing of the filth of 3,600 persons. The drainage system was carried out during the year, and was a decided success. The <i>bustees</i> surrounding the cantonments are still a considerable source of danger to the troops in garrison. Perfect sanitation in the <i>sadar</i> bazar is impossible so long as the private latrines exist. The extension of the water-supply to the musketry range has been very beneficial in keeping down disease. The water is of good quality and sufficient. The <i>bustees</i> around the cantonments are in a perpetual insanitary condition. The municipal commissioners are still being moved through the civil authorities to improve the condition of the neighbouring <i>bustees</i> . The cantonment filtered water-supply is to be partly extended to some of the more insanitary parts of the municipality. The District Principal Medical Officer remarks that "venereal and ague were the prevailing diseases, the former all the year round, and the latter chiefly in August, September and October. As usually occurs when supervision is withdrawn, and medical treatment is not had recourse to, the type of venereal tended towards greater severity. To these causes I attribute the severity of the cases referred to. Sanitary inspections of the prostitutes, and the early treatment of the disease <i>in them</i> would remedy the evil. The ague is climatic in origin, and is aggravated by the insanitary surroundings of the cantonment, both in respect of the swampy condition of the soil itself and the proximity of filthy <i>bustees</i> to the cantonment, which are not under the jurisdiction of the cantonment authorities. All villages within half a mile of cantonment might be placed under supervision for sanitary purposes. The drainage scheme has proved successful. I would advocate its extension." The General Officer Commanding the District remarks that a very marked sanitary improvement has been effected here, as is shown by the health of the troops. It is impossible to deal with private latrines till the law gives greater powers. The second cinerator is now working. The new drainage scheme is a great success. The men this year could drill on ground that used to be a pool of water in the rains. The <i>bustees</i> around the barracks should be bought up and destroyed, or included in the cantonment limits.
Fatehgarh	"	There was no unusual sickness. The main drain to the north-east of the cantonment near the plunge bath should be continued at least 100 yards from its present termination; as in the summer, when the bath is emptied, a marsh forms at the end of the drain, which causes an offensive odour as it dries up.
Delhi	"	Amongst the native troops the disease most prevalent was ague. See Table V.
Darjeeling	"	The troops suffered from various climatic diseases, due to vicissitudes of climate and negligence in taking care of themselves. The water-supply is good, ample, and well protected. The District Principal Medical Officer remarks that "with an efficient cinerator at work at Jalapahar and <i>dhobies'</i> tanks constructed for washing (both of which measures are under construction), there will be practically no sanitary defects at Darjeeling.
Naini Tal	"	See Table V.

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TABLE XXX—continued.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

STATION.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Lansdowne	Bengal	The most prevalent disease was ague, to which was due over one third of the admissions. Mumps was prevalent in the 2nd Battalion 3rd Gurkhas and in the 9th Gurkhas. Ague is due to malaria. The disease is not generally contracted here, the station being singularly free from malarious influences. Mumps is a very infectious disease, and it is well that all who are susceptible should contract it, as they cannot then get it again on service. In the lines of the 39th Gurhwal Rifles the accommodation was deficient.
Mooltan	Punjab	The heavy battery being located here, the company of the Bengal Infantry which it displaces, has been accommodated under canvas. The sanitary condition of the adjacent villages is not so carefully supervised as it might be by the municipality. The present arrangement by which night-soil is sold to a <i>zamindar</i> contractor and buried on his land outside the cantonment is not sound. It is most important that the whole of the night-soil should be disposed of by the Allahabad system. A new laundry system providing for a small tank and separate supply of clean water and a standing place outside the tank for each <i>dhobie</i> with washing board is urgently required. The accommodation provided for sick in the native cavalry hospital is much too small. A full-sized hospital as authorised for a regiment of native cavalry should be provided.
Nowshera	„	The prevalence of bronchitis and pneumonia amongst the 38th Dogras seemed to be due to : (a) debility produced by hardship in Waziristan during the previous year; (b) want of a proper supply of vegetables during the same period, producing scurvy; (c) malaria acting in combination with the above; (d) a constitutional predisposition in Dogras to lung diseases; (e) excessive tobacco smoking; and (f) want of care on the part of the men in providing against chill.* This was the only corps in which any unusual sickness occurred, and that only with regard to bronchitis and pneumonia. See also Table V.
Peshawar	„	The prevailing diseases were ague, influenza and pneumonia, the latter having been the chief cause of mortality. The sickness, however, was less than in the previous years. The 1st Bengal Infantry suffered severely from fatal pneumonia and influenza in January, due to the regiment being composed of down-country men unaccustomed to the rigorous Punjab winter. Of the normal native troops of the garrison, the 20th Punjab Infantry suffered most from sickness, due to their having been the previous two years on service in Waziristan. The water-supply is not defective. The health of the natives in the <i>sadar</i> bazar has been exceptionally good this year. The Allahabad system of trenching has been introduced, and is working admirably well. A large number of trees has been cut down this year a measure which has improved the circulation of air. The drainage of the new cavalry lines is defective. The maintenance of the Government Dairy has been sanctioned, and it is hoped that under the trained manager its financial position will improve.
Mardan	„	There has been no unusual sickness during the year. The water-supply is sufficient and of good quality. There is no apparent source of contamination other than the possibility of the fouling of the water of wells, in which Persian wheels are used, by the animals that work them. This, on analysis, would not seem to have been the case. There was no overcrowding. Improvements in the ventilation and warming of the fort barracks have obviated existing defects. Ventilation is deficient in some of the sowars' huts, but this does not appear to interfere with the health of the occupants. The possibility of improving the ventilation of these quarters is under consideration. The village of Baghdadu in close proximity to cantonments has proved a source of anxiety in former years, especially when cholera appears in the neighbourhood. It is beyond cantonment limits and not under the same sanitary control.
Kohat	„	There was no unusual sickness during the year. Ague was due to climatic conditions; small-pox was introduced from the villages; mumps was epidemic; and cholera was introduced from the civil populations, but it was not definitely traced. The water-supply is good and sufficient. No overcrowding exists except in the centre infantry lines and the 3rd Punjab Cavalry lines. The demolition of the former lines and their erection on another site has been sanctioned. One extra squadron cavalry lines is also under construction. The sanitation of Kohat has been much improved of late years. The water-supply is a great success and the hydrants are largely used. The number of channels containing impure water, however, which flow so temptingly near, must always be a source of danger.

* But see the Command P. M. O.'s opinion, quoted in Section III, paragraph 58.

STATION.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Edwardesabad	Punjab	Malarial fevers were due to climatic causes. Respiratory affections were attributed to cold and chill. There was no unusual sickness during the year. Water is raised by <i>coolies</i> from the well in the fort and distributed by pipes and taps. It would be a great improvement if the same were done for the well supplying the cavalry and the artillery lines. In the cavalry lines water is distributed in ' <i>kutch</i> a' drains for horses, etc. The station being surrounded by a sea of irrigation, it is extremely difficult to put it into a fairly good sanitary condition. Moveable latrines and the removal system is urgently required, a piece of land outside the cantonments being acquired and used for trenching purposes. The water should be conveyed in pipes to the cavalry and the artillery lines, and, if possible, to the whole station. The drainage of the fort and the lines should be improved by making masonry drains. The very confined area of the cantonments, the amount of water, and high crops profusely irrigated, will always make this station an unhealthy one, and owing to the value of the land it is almost impossible to hope government will ever acquire more of it.
Dera Ismail Khan	"	Ague was prevalent in October and November, mumps in March, influenza in spring, and pneumonia more or less all through the year. Ague was due to climatic and seasonal conditions, especially the variation in the range of diurnal temperature. The cause of mumps is unknown. There has, however, been no unusual sickness during the year. The quantity of water was sufficient and the quality fairly good. It is drawn from wells which are sufficiently open to be contaminated by dust and is distributed in <i>mussacks</i> . When the Indus is in flood, the drainage of cantonments is much interfered with, the water from the river flowing up the main drain and raising the level of the well water some three feet; but no suggestions can be offered for remedying this state of things.
Berhampur	Madras	Ague, rheumatism, cholera and debility were prevalent. Among the civil population the prevailing diseases and the chief causes of death were cholera, fevers and bowel complaints. Cholera was prevalent during the latter half of the year, having broken out amongst the troops in October. It was imported into the town by pilgrims from Rajamundry bathing festival, and spread to the lines. The cases that occurred amongst the troops were due to indiscretion in diet, or drinking impure water or bad country liquor. The water-supply for ordinary purposes is abundant and is obtained from tanks. This water is of a somewhat inferior quality to the drinking water procured from a large well on the edge of the parade ground. The situation of the well is good, but it is too far from the lines, and runs dry in the hot weather. The sanitary arrangements in the compounds of the men's huts are bad.
Neemuch	Bombay	The floors of the huts are, as a rule, below the outside surface. The huts of the cavalry are too small for more than a single man, having 80 square feet area and 760 cubic feet capacity. A cavalry man's kit, which is larger than an infantry man's, and his accoutrements, make a small room very foul. Besides, sometimes two men live in one room. The floors of the huts require raising. The drainage requires improvement also. See also Table V.
Ahmedabad	"	See Table V.
Bhuj	"	As regards the troops, this was a very healthy year. Their sanitary surroundings are good; and the men being vaccinated small-pox did not affect them much. On the other hand, the native population suffered much from the small-pox epidemic, an outbreak such as had not occurred for several years past. Their sanitary surroundings are of the worst sort, and directly the disease got hold of the people they fell a victim to it. They also evade vaccination as much as possible. The <i>Bhil</i> settlements near the bazar are most filthy, and should be removed, if possible. Small-pox raged therein for 6 months on end. Vegetables and fruit are very scarce at this station.
Kamptee	"	Malarial fevers accounted for the greatest number of admissions, attributable no doubt to the malarious nature of the surrounding country. Cholera broke out in March, a month after the arrival of the regiment (7th Madras Infantry), causing 9 admissions with 5 deaths. No source of infection could be traced. The increase in the sick-rate of the regiment was undoubtedly due to changes of climate and surroundings brought about by the transfer of the regiment from Belgam to Kamptee. The water-supply is obtained entirely from wells. Its quality is good and quantity sufficient. There is no source of contamination.

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TABLE XXX—concluded.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

STATION.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Loralai.	Bombay	Malarial fevers prevailed from the beginning of July to the end of September; and pneumonia during the first three and last two months of the year. The former was due to climatic and seasonal causes, the latter to season. Malarial fevers were more prevalent than last year. The 15th Bengal Lancers suffered more than the 29th Bombay Infantry. But there is nothing to account for this. The quantity of water is sufficient during the cold season, but during the hot season the drinking and irrigation water <i>karezes</i> run somewhat low, the deficiency being most felt for irrigation purposes. The quality of the water is fairly good, and no sickness has been traceable to it. Wells are in use in the fort, the water from which is good and sufficient.
Kherwara	Central India and Rajputana	There was some overcrowding for three weeks in November and December. The old lines are draughty, and are to be replaced. The defects in the conservancy of the hospital and the married lines are being remedied by the introduction of a filth cart. Personal cleanliness is not carefully attended to; it is hard to remedy this in a race like the <i>Bhils</i> , but measures have been taken to that end. Some of the drinking water wells are bad, but are being improved. There is, however, sufficient good water. The causes of sickness were:—(1) ulcer, which was due to a great extent to a racial tendency among the <i>Bhils</i> to the formation of callous ulcers, to a minor extent to bad feeding and to the neglect of incipient lesions, and to laceration by thorns, stones, etc.; (2) malarial fevers, which were predisposed to by the mode of life amongst the <i>Bhils</i> , who, usually having little or no clothing in the wild state, and then having to wear uniform, become subject to chills and to seasonal causes; (3) <i>filaria Medinensis</i> , which was derived from bad drinking water taken by the men when visiting their homes; (4) pneumonia, which was predisposed to by exposure to chills, opium eating, drinking of native liquors, etc. The place is well drained.
Erinpura	„	There was slight overcrowding during the months of February, March, November and December. Sickness was principally the result of malaria, but there is no special local cause. Chest affections and rheumatism were the result of cold; diarrhoea principally occurred amongst men who had returned from detachment duty at Mount Abu; abrasions of the feet were very frequent, and were the result of wearing badly-fitting ammunition boots without socks; itch was the result of uncleanness amongst the low-caste men such as the <i>Meenas</i> and <i>Mhairs</i> . Exposure to cold and malaria were the principal causes of mortality.
Ellichpur	Hyderabad Contingent .	There was no overcrowding except in the case of a few married men. The district is malarious and the subsoil water very near the surface. Ventilation is defective. There are too many trees in the neighbourhood. Many have, however, been cut down during the year.
Hingoli	„	There is a scarcity of water at the end of the hot season. Sickness was due to malaria and chills, and to local injuries; mortality to the former two causes.

TABLE XXXI.

INFLUENZA by months, stations, groups and commands.

TABLE XXXII.

CHOLERA by months, stations, groups and commands.

STATIONS.*	ADMISSIONS FROM INFLUENZA IN EACH MONTH.													ADMISSIONS FROM CHOLERA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Myingyan . . . . .	...	...	3	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Haka . . . . .	...	...	69	...	...	...	...	...	...	...	...	...	69	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Stedman . . . . .	...	...	...	11	5	...	...	...	...	...	...	...	16	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP II.—BURMA INLAND	...	...	72	11	5	...	...	...	...	...	...	...	88	...	...	...	...	...	...	...	...	...	...	...	...	...
Dibrugarh . . . . .	...	11	...	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Manipur . . . . .	...	...	...	9	1	...	...	...	...	...	...	...	10	...	...	...	...	36	1	...	...	...	...	...	...	37
GROUP III.—ASSAM	...	11	...	9	1	...	...	...	...	...	...	...	21	...	...	...	...	36	1	...	...	...	...	...	...	37
Fort William . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Alipore and Ballygunge	12	2	1	...	...	...	...	...	...	...	...	...	15	...	...	...	...	...	1	...	...	...	...	...	...	1
Cuttack . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IV.—BENGAL AND ORISSA	12	2	1	...	...	...	...	...	...	...	...	...	15	...	...	...	1	...	1	...	...	...	...	...	...	2
Doranda . . . . .	...	...	22	1	...	...	...	...	...	...	...	...	23	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinapore . . . . .	...	6	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	1	...	...	...	...	...	...	...	1
Fyzabad . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1
Lucknow	30	3	...	...	...	...	...	...	...	...	...	...	34	...	...	...	...	...	...	...	...	...	...	...	...	...
Allahabad	6	3	2	...	...	...	...	...	...	...	...	...	11	...	...	...	1	...	...	...	...	1	...	...	...	2
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	36	12	25	1	...	...	...	...	...	...	...	1	75	...	...	...	...	2	...	...	...	...	2	...	...	4
Bareilly	19	...	...	...	...	...	...	...	...	...	...	...	19	...	...	...	...	...	...	...	...	...	...	...	...	...
Dehra Dun . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	7	...	...	...	...	...	7
Roorkee . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Rawalpindi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	3
GROUP VI.—UPPER SUB-HIMALAYAN	19	1	...	...	...	...	1	...	...	...	...	...	21	...	...	...	...	3	...	...	7	...	...	...	...	10
Peshawar	39	18	...	...	...	...	...	...	...	...	...	...	57	...	...	...	...	...	...	...	...	...	...	...	...	...
Kohat and outposts	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	2	...	...	...	...	3
Edwardesabad	82	6	...	...	...	...	...	...	...	...	...	...	88	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ismail Khan	6	21	8	...	...	...	...	...	...	...	...	...	35	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ghazi Khan	22	...	...	...	...	...	...	...	...	...	...	...	22	...	...	...	...	...	...	...	...	...	...	...	...	...
Sibi . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY AND NORTH-WESTERN RAJPUTANA	150	45	8	...	...	...	...	...	...	...	1	...	204	...	...	...	...	...	...	1	2	...	...	...	...	3
Jhansi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Nowgong . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Neemuch	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Sehore and outposts . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mhow	8	15	11	1	1	...	...	...	...	...	6	...	42	...	...	...	...	1	4	1	...	...	...	...	...	6
Agar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Goona	19	...	...	...	...	...	...	...	...	...	...	...	19	...	...	...	...	...	1	1	1	...	...	...	...	2
Sirdarpore . . . . .	...	...	...	...	...	...	...	...	...	4	1	...	5	...	...	...	...	...	...	...	...	...	...	...	...	3
Kherwara	9	5	2	...	...	...	...	...	...	...	...	...	16	...	...	...	...	1	3	4	...	...	...	...	...	8
Oodeypore	1	1	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Ahmedabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhuj . . . . .	...	...	...	...	15	6	...	...	...	...	...	...	21	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA AND GUJARAT	39	21	13	1	16	6	...	...	...	4	7	...	107	...	...	...	1	3	9	9	...	...	...	...	...	22
Nasik . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Saugor	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Kamptee . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2	3	1	...	...	...	...	...	10
Sitabaldi	2	1	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Raipur	11	1	...	...	...	...	...	...	...	...	...	...	12	...	...	...	...	...	1	...	...	...	...	...	...	1
Sirur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...	...	...	...	4
Poona . . . . .	...	1	6	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Kirkee . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Satara . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Jalna . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Hingoli . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1	1	...	...	...	...	6
Bolarum	5	9	43	...	...	...	...	...	...	...	...	...	57	...	...	...	...	...	1	...	...	...	...	...	...	1
Raichur . . . . .	...	...	...	...	...	...	...	...	...	...						

* Stations where neither Influenza or Cholera occurred are not shown in these tables. For the annual ratios see Table XXVIII.

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TABLE XXXI—concluded.

INFLUENZA by months, stations, groups and commands.

TABLE XXXII—concluded.

CHOLERA by months, stations, groups and commands.

STATIONS.	ADMISSIONS FROM INFLUENZA IN EACH MONTH.													ADMISSIONS FROM CHOLERA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Kohima . . . . .	...	...	55	...	...	...	...	...	...	...	...	...	55	...	...	...	...	...	...	...	...	...	...	...	...	...
Lansdowne	3	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Dharmasala	1	26	96	12	...	...	...	...	...	...	...	...	135	...	...	...	...	...	...	...	...	...	...	...	...	...
Bakloh . . . . .	...	...	65	1	...	...	...	...	...	...	...	...	66	...	...	...	...	...	...	...	...	...	...	...	...	...
Abbottabad	22	...	...	...	...	...	...	...	...	...	...	...	22	...	...	...	...	...	...	...	...	...	...	...	...	...
Wana . . . . .	...	...	...	...	...	5	...	...	...	...	1	6	12	...	...	...	...	...	...	...	...	...	...	...	...	...
Quetta . . . . .	...	...	...	...	...	...	31	56	53	35	53	51	279	...	...	...	...	...	...	...	...	...	...	...	...	...
Chaman	24	8	...	...	...	...	...	...	...	...	...	...	32	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XII.—HILL STATIONS	50	34	216	13	...	5	31	56	53	35	54	57	604	...	...	...	...	...	...	...	...	...	...	...	...	...
Chitral	11	52	3	...	...	...	...	...	...	...	...	...	66	...	...	...	...	...	...	...	...	...	...	...	...	...
Malakand	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Marching in Bengal . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
„ Punjab	3	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
„ Bombay	31	1	1	...	...	...	1	...	...	...	...	1	35	...	...	...	...	...	1	...	...	...	...	...	...	1
Mombasa Field Force . . . . .	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
INDIA	372	196	397	35	22	11	33	57	53	39	82	72	1,369	...	...	2	3	11	46	21	25	6	6	4	8	132
BENGAL COMMAND	71	26	81	10	1	...	1	...	...	...	...	1	191	...	...	...	1	2	37	1	9	...	3	...	...	53
PUNJAB „	189	123	172	13	...	5	...	...	...	...	1	6	509	...	...	...	...	3	...	...	1	2	...	...	...	6
MADRAS „ . . . . .	...	5	79	11	5	...	...	1	...	...	20	13	134	...	...	...	...	...	...	3	6	2	2	4	8	25
BOMBAY „	78	27	18	1	16	6	32	56	53	35	60	52	434	...	...	2	2	6	6	3	1	...	...	...	...	20
CENTRAL INDIA AND RAJ-PUTANA CORPS	29	6	2	4	1	...	42	3	9	7	19
HYDERABAD CONTINGENT	5	9	43	57	5	1	2	1	9

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TABLE XXXIII.

ENTERIC FEVER by months, stations, groups and commands.

TABLE XXXIV.

SIMPLE CONTINUED FEVER by months, stations, groups and commands.

STATIONS.*	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.													ADMISSIONS FROM SIMPLE CONTINUED FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Port Blair	2	...	1	...	...	...	...	1	...	...	...	4
Rangoon	1	...	...	...	...	...	...	...	...	...	1	...	2
GROUP I.—BURMA COAST AND BAY ISLANDS	1	2	...	1	...	...	...	...	1	...	...	1	6
Myingyan	1	...	5	1	2	1	2	2	...	...	...	14
Haka	1	1	...	...	2
Fort Dufferin	1	...	1	...	1	...	...	3
Fort Stedman	2	...	...	...	...	2
GROUP II.—BURMA INLAND	1	...	5	1	3	1	3	4	1	2	...	21
Manipur	3	...	...	...	...	...	...	...	...	3	...	1	...	16	1	...	2	4	1	2	1	1	29
GROUP III.—ASSAM	3	...	...	...	...	...	...	...	...	3	...	1	...	16	1	...	2	4	1	2	1	1	29
Fort William	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	3	1	3	...	...	7
Alipore and Ballygunge	5	9	10	1	4	...	...	...	29
Barrackpore	10	5	20	16	1	...	1	14	10	8	7	3	95
GROUP IV.—BENGAL AND ORISSA	1	...	...	...	...	...	...	...	...	...	...	...	1	10	5	20	16	1	5	10	27	12	15	7	3	131
Lucknow	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Cawnpore	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Allahabad	2	...	...	...	...	...	...	...	...	...	...	2	...	...	4	...	...	...	...	...	...	...	...	...	4
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	2	...	...	...	1	...	...	...	1	...	...	4	...	...	4	...	...	...	...	...	...	...	...	...	4
Dehra Dun	3	...	3	...	...	5	23	3	32	12	10	...	91
Meerut	2	1	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Sialkot	1	...	...	...	...	1
Meean Meer	2	...	...	...	...	1	...	3
Rawalpindi	1	...	...	...	...	...	...	...	...	1
GROUP VI.—UPPER SUB-HIMALAYAN	2	1	...	...	...	...	...	...	3	3	...	3	...	1	5	25	4	32	12	10	1	96
Nowshera	1	...	...	...	...	...	...	...	...	1
Peshawar	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Edwardesabad and outposts	1	1	...	15	4	...	...	...	...	...	...	21
Dera Ismail Khan „	1	4	1	...	...	...	1	...	7
Dera Ghazi Khan „	2	...	...	...	...	...	...	...	2
Sibi	2	...	...	...	...	...	...	...	...	...	...	...	2
Hyderabad	1	1	...	...	1	...	...	...	...	3
Kurrachee	1	...	...	...	...	...	...	1
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY AND NORTH-WESTERN RAJPUTANA	1	...	...	...	...	...	...	...	1	2	1	1	2	4	20	5	1	...	...	...	1	37
Agra	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	1	...	...	...	2
Neemuch	1	1	2	...	...	...	...	...	...	...	4
Indore	1	...	...	...	...	...	...	...	1
Sehore and outposts	9	...	8	8	1	...	8	13	17	6	12	7	89
Mhow	1	1	5	...	...	...	...	...	1	...	...	8
Sadra	1	...	1	...	...	2
Agar	3	...	...	...	...	3
Goona	3	...	...	...	...	...	...	...	...	3
Sirdarpore	1	1	...	...	...	...	1	1	...	4
Deoli	1	...	...	...	...	...	...	...	1
Jeypore	2	...	2
Jhalawar	1	...	...	...	...	...	...	...	...	...	1
Deesa	1	...	...	3	2	...	1	...	...	1	...	...	8
Ahmedabad	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1
Rajkot	1	...	1	9	10	9	...	30
Bhuj	4	3	3	3	10	9	6	3	4	8	9	11	73
Baroda	1	...	...	...	...	1	...	...	...	...	...	2	...	1	...	1	1	...	...	19	4	1	1	...	28
Sarat	3	3	1	...	...	...	...	...	...	...	...	...	7
GROUP VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA AND GUJARAT	1	...	1	...	...	1	...	...	1	...	...	4	17	9	15	26	18	11	15	17	45	28	35	31	267

* Stations where neither Enteric nor Simple Continued Fever occurred are not shown in these tables. For the annual ratios see Table XXVIII.

TABLE XXXV—continued.

INTERMITTENT FEVER by months, stations, groups and commands.

TABLE XXXVI—continued.

REMITTENT FEVER by months, stations, groups and commands.

STATIONS.	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												ADMISSIONS FROM SIMPLE CONTINUED FEVER IN EACH MONTH.														
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	
Saugor	1	1
Sambalpur	1	...	...	...	...	...	...	...	...	...	1	...	10	15	15	11	12	17	7	12	3	1	...	3	
Kamptee	1	1	2	3	...	...	2	...	...	...	10	
Sitabaldi	3	2	3	6	1	1	2	2	...	...	9	
Raipur	6	5	39	7	...	3	5	2	1	3	20	
Ahmednagar	7	6	6	5	39	7	...	3	5	2	1	3	84	
Poona	2	...	1	20	11	4	...	1	2	1	1	1	44	
Kirkee	1	...	4	...	1	2	...	...	2	...	...	...	10	
Belgam	3	2	...	...	...	...	...	...	...	...	...	...	5	
Ellichpur	2	...	2	
Aurangabad	1	...	...	...	...	...	...	...	1	
Jalna	2	1	...	...	...	...	...	...	...	...	3	
Hingoli	1	...	...	2	1	...	...	...	...	...	...	...	4	
Mominabad	1	...	2	...	...	...	...	...	3	
Bolarum	1	...	...	...	...	...	...	1	...	...	...	...	2	
Secunderabad	2	...	...	...	...	1	1	...	1	...	3	8	
GROUP IX.—DECCAN	1	...	...	...	...	...	...	...	...	...	1	16	20	33	46	70	34	21	16	24	11	3	9	303	
Bombay	1	...	...	...	4	...	5	
Cannanore	1	...	1	...	...	...	...	...	1	...	...	...	5	
Trichoor	2	3	...	...	...	...	2	...	...	...	...	7	
Quilon	4	1	2	4	3	1	3	2	...	1	2	8	31	
Trivandrum	1	1	...	1	...	...	...	1	...	...	...	4	
GROUP X.—WESTERN COAST	5	4	7	4	5	1	4	2	4	1	3	12	52	
Bangalore	1	...	...	...	1	5	4	6	19	24	13	11	8	11	10	5	2	118	
Bellary	5	3	1	1	1	1	2	6	1	1	22	
Trichinopoly	19	3	6	6	1	8	2	4	5	3	...	1	58	
Madras	1	1	1	1	...	...	1	...	...	...	5	
GROUP XI.—SOUTHERN INDIA	1	...	...	...	1	24	7	18	29	27	23	14	13	19	19	6	4	203	
Ranikhet	1	...	...	...	...	1	...	...	...	...	2	
Bakloh	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Abbottabad	3	...	1	...	...	1	...	...	5	
Wana	1	...	...	13	49	2	...	...	...	...	...	...	65	
Quetta	1	...	...	1	6	1	1	3	4	1	...	1	19	
Loralai	1	...	...	...	...	...	1	
Peshin	3	...	...	3	
Ootacamund	1	...	...	...	...	...	...	1	
GROUP XII.—HILL STATIONS	1	...	...	...	...	...	...	1	2	...	1	1	19	54	5	4	4	1	4	1	96	
Marching in Bengal	2	...	...	...	...	...	...	...	...	...	...	2	
„ Madras	1	...	...	1	
„ Bombay	1	...	...	6	...	7	
Aden	1	...	...	...	...	1	...	...	...	2	
Persian Gulf	1	1	...	...	...	...	...	...	...	2	
Suakin Field Force	1	1	...	2	...	...	...	5	
INDIA	1	3	1	4	3	3	1	...	1	2	...	...	19	80	52	102	147	149	157	103	93	148	91	72	70	1,264
BENGAL COMMAND	1	2	...	4	2	2	...	...	...	1	...	...	12	13	8	29	33	2	10	35	35	46	29	18	4	262
PUNJAB	1	1	...	...	...	...	...	...	2	1	1	1	17	71	10	1	...	...	1	2	...	106	
MADRAS	1	...	...	...	1	33	18	25	39	33	28	19	19	28	22	12	16	292	
BOMBAY	1	1	...	...	...	1	...	...	1	...	...	4	22	25	36	59	91	47	28	23	52	34	28	36	481	
CENTRAL INDIA AND RAJ-PUTANA CORPS	9	...	9	12	3	...	8	13	20	6	13	10	103	
HYDERABAD CONTINGENT	2	...	2	3	3	...	2	1	...	...	...	2	15	

NATIVE TROOPS, 1896.

TABLE XXXV.

INTERMITTENT FEVER by months, stations, groups and commands.

TABLE XXXVI.

REMITTENT FEVER by months, stations, groups and commands.

STATIONS.*	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.													ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Port Blair . . .	2	...	2	...	...	...	1	...	1	...	1	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Moulmein . . .	2	1	1	4	17	25	4	6	10	3	2	5	80	1	...	...	...	...	...	...	...	...	...	1	...	2
Rangoon . . .	15	4	5	9	9	10	10	11	3	5	7	9	97	...	1	2	...	...	...	1	...	...	...	...	...	4
GROUP I.—BURMA COAST AND BAY ISLANDS . . .	19	5	8	13	26	35	15	17	14	8	10	14	184	1	1	2	...	...	...	1	...	...	...	1	...	6
Thayetmyo . . .	14	10	6	2	14	19	13	6	7	10	16	10	127	...	...	...	...	...	...	...	...	...	...	...	...	...
Meiktila . . .	8	2	1	...	...	2	2	6	3	7	1	3	35	2	...	...	...	...	...	...	...	...	...	...	...	2
Mindat-Sakan . . .	5	6	6	4	...	4	9	12	31	17	6	10	110	...	...	...	2	1	...	...	...	...	...	...	...	3
Myingyan . . .	7	11	6	11	5	10	7	...	3	4	1	5	70	...	...	...	...	...	...	...	...	...	...	...	...	...
Pagan . . .	2	2	1	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Kan . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Haka . . .	11	9	32	8	7	5	6	20	10	2	2	3	115	1	...	1	1	...	...	1	...	...	...	...	...	4
Falam . . .	1	1	2	...	8	10	9	2	1	2	1	...	37	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalemyo . . .	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalewa . . .	...	2	...	...	1	3	3	...	5	3	4	5	26	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyaukmyaung . . .	...	2	...	2	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhamo . . .	9	16	10	7	4	27	73	121	124	145	65	36	637	...	1	...	...	...	...	6	...	...	...	1	...	8
Thabeitkyin . . .	...	...	3	1	...	2	1	1	1	3	2	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Shwebo . . .	11	4	16	4	1	6	4	2	6	1	...	1	56	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Dufferin . . .	21	7	9	6	6	72	24	32	112	99	34	18	440	2	...	...	...	...	2	...	...	...	...	...	...	4
Loikaw . . .	29	9	11	9	2	5	4	6	23	28	32	34	192	...	...	...	...	...	...	...	...	...	1	1	...	2
Fort Stedman . . .	15	12	7	4	3	20	23	10	22	7	9	18	150	...	...	...	...	...	...	1	...	...	...	...	...	1
Bampon . . .	11	7	9	4	2	4	4	12	17	19	19	19	127	...	1	1	1	...	...	...	...	...	...	...	...	3
Thamakan . . .	...	1	...	...	...	1	2	1	...	3	...	1	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Toungyi . . .	...	...	3	2	2	1	...	1	...	1	1	3	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Keng Tung . . .	21	14	8	11	59	242	205	213	83	83	73	76	1,088	...	1	...	...	...	...	3	2	1	...	...	...	7
Mong Hsing . . .	4	9	12	9	3	...	...	...	...	...	...	...	37	1	...	...	1	...	...	...	...	...	...	...	...	2
GROUP II.—BURMA INLAND . . .	170	124	143	84	117	433	389	445	448	434	266	242	3,295	6	3	2	5	1	2	8	3	2	1	1	2	36
Silchar . . .	10	8	35	22	14	8	8	3	17	37	4	17	183	...	...	1	1	...	...	...	...	...	...	...	...	2
Dibrugarh . . .	7	8	2	3	6	20	9	14	57	43	9	9	187	...	...	1	...	2	2	3	3	1	...	...	...	12
Manipur . . .	14	4	12	11	6	4	57	84	19	28	44	41	324	2	3	4	1	...	3	2	...	...	...	...	...	15
GROUP III.—ASSAM . . .	31	20	49	36	26	32	74	101	93	108	57	67	694	2	3	6	2	2	5	5	3	1	...	...	...	29
Fort William . . .	118	66	43	15	4	28	39	19	22	15	20	26	415	2	...	2	...	...	...	...	1	...	...	...	...	5
Alipore and Bally- gunge . . .	9	4	9	9	7	19	39	16	22	6	37	48	225	...	...	...	...	...	1	2	...	...	...	1	3	7
Dum Dum . . .	1	...	2	...	...	...	...	...	...	3	4	5	15	...	...	...	...	...	...	...	...	...	1	...	...	1
Barrackpore . . .	...	2	...	...	2	5	7	21	27	12	31	27	134	...	...	...	...	...	...	...	...	...	...	...	...	...
Buxa . . .	4	11	3	6	7	20	11	10	9	23	30	17	151	...	...	...	1	...	...	...	...	...	...	...	...	1
Cuttack . . .	3	...	...	...	1	2	3	2	1	2	2	3	19	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IV.—BENGAL AND ORISSA . . .	135	83	57	30	21	74	99	68	81	61	124	126	959	2	...	2	1	...	1	2	1	...	1	1	3	14
Doranda . . .	5	8	5	1	...	7	15	19	24	16	13	6	119	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinapore . . .	1	...	4	...	1	1	...	...	1	3	3	...	14	3	...	...	...	3	1	2	2	7	1	5	3	27
Benares . . .	32	3	11	2	5	19	47	42	23	12	5	10	211	...	...	...	...	...	3	5	...	...	...	...	...	8
Fyzabad . . .	27	13	13	12	11	10	14	10	25	19	13	20	187	...	...	...	...	...	1	...	2	3	...	...	...	6
Lucknow . . .	20	8	11	5	5	5	5	11	29	9	7	18	133	...	...	...	...	2	...	...	...	1	...	...	...	3
Fatehgarh . . .	...	3	2	10	8	4	1	1	...	2	1	4	36	...	...	...	...	...	...	...	...	...	...	...	...	...
Cawnpore . . .	21	6	8	16	11	17	6	7	31	55	14	11	203	1	3	1	...	2	2	1	11	22	4	5	...	54
Allahabad . . .	21	12	5	5	4	7	5	11	75	32	10	6	193	7	4	...	...	...	...	...	...	1	3	...	...	15
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR . . .	127	53	59	51	45	70	93	101	208	148	66	75	1,096	11	7	1	...	7	4	7	10	23	26	9	8	113
Bareilly . . .	16	3	12	18	22	10	8	9	26	24	14	8	170	4	3	11	2	6	6	1	2	4	5	3	1	48
Dehra Dun . . .	19	6	13	10	17	24	46	95	54	41	17	24	366	1	...	2	5	2	3	8	7	6	10	1	...	45
Roorkee . . .	11	1	4	6	4	8	5	5	11	4	16	3	78	1	1	1	1	...	...	...	...	...	...	1	...	5
Meerut . . .	25	8	13	11	13	17	17	29	74	102	114	82	505	3	...	3	...	1	1	...	3	1	...	...	...	12
Delhi . . .	8	3	4	15	11	9	13	10	44	67	9	34	227	...	1	5	2	2	1	2	1	2	3	...	...	19
Umballa . . .	6	9	6	8	13	8	11	13	32	31	12	162	162	1	1	2	...	...	2	14	5	4	32	9	2	72
Ludhiana . . .	1	1	1	...	1	1	...	...	1	1	4	2	13	...	...	...	...	...	...	...	...	...	1	...	...	1
Jullundur . . .	21	3	6	4	2	2	8	14	18	17	10	9	114	2	...	...	...	1	...	...	...	...	...	...	...	3
Ferozepore . . .	12	4	15	12	3	5	4	4	7	27	11	6	110	1	2	...	1	1	1	...	1	2	10	3	3	25
Sialkot . . .	20	8	16	18	12	19	14	18	16	25	17	16	199	5	1	4	2	1	...	...	3	1	4	1	2	24
Amritsar . . .	3	...	1	...	...	1	2	...	1	5	1	1	15	...	...	...	...	...	...	...	...	...	...	...	...	...
Meean Meer . . .	11	7	10	4	5	9	20	12	13	13	18	2	124	5	2	3	1	...	3	5	6	7	9	8	6	55
Jhelum . . .	31	8	11	4	5	12	7	12	38	23	23	6	180	10	3	...	...	...	1	1	7	25	8	5	3	63
Rawalpindi . . .	15	21	23	19	9	19	25	26	74	99	30	19	379	...	1	...	1	1	...	...	1	2	1	2	1	10
Attock . . .	1	...	...	1	...	...	1	3	1	6	7	2	22	...	...	...	...	...	...	...	...	...	...	...	...	1
GROUP VI.—UPPER SUB-HIMALAYAN . . .	200	82	135	130	117	144	181	250	391	486	322	226	2,664	33	15	31	15	15	18	31	36	55	83	33	18	383

* Stations where neither Intermittent nor Remittent Fever occurred are not shown in these tables. For the annual ratios see Table XXVIII.

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TABLE XXXV—*concluded.*

INTERMITTENT FEVER by months, stations, groups and commands.

STATIONS.	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Bikanir . . . .	...	...	...	...	...	...	...	...	2	...	...	...	2
Mooltan	26	8	13	7	9	5	4	43	58	16	16	3	208
Nowshera	9	10	6	4	14	32	9	10	3	64	56	13	230
Peshawar	43	15	13	13	13	16	17	26	144	83	35	30	453
Fort Jamrud . . . .	...	2	...	2	...	...	...	...	...	...	...	...	4
Mardan	18	5	13	11	8	25	11	13	11	73	30	24	242
Kohat and outposts	68	38	44	22	31	58	63	51	164	152	97	71	859
Edwardesabad and outposts	29	19	28	13	26	5	15	17	43	164	162	82	603
Jandola	3	...	1	4	1	3	3	4	6	20	18	4	67
Khajuri Kach . . . .	...	5	1	...	...	...	1	5	19	41	12	3	87
Dera Ismail Khan and outposts	45	15	12	17	58	22	10	4	25	65	67	82	422
Dera Ghazi Khan	11	17	16	12	17	18	11	8	9	28	45	15	207
Sibi	4	2	...	35	4	3	...	...	...	10	13	69	140
Jacobabad	32	10	3	1	8	5	7	5	17	41	82	52	263
Hyderabad	9	2	4	...	2	3	3	7	9	28	25	6	93
Kurrachee	7	12	9	2	16	37	28	30	57	54	57	64	373
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY AND NORTH-WESTERN RAJPUTANA	309	160	163	143	207	232	182	223	567	839	715	518	4,258
Agra	2	5	3	9	4	3	6	...	16	5	93	71	217
Jhansi	1	6	29	7	4	4	4	28	118	40	18	16	275
Nowgong	5	3	19	9	14	12	3	12	46	29	47	40	239
Nasirabad	1	1	3	3	3	1	7	12	23	7	3	...	64
Neemuch	10	10	5	6	4	3	3	13	34	46	38	15	187
Indore	2	1	7	7	5	6	1	1	...	1	...	1	32
Shore and outposts	21	8	28	26	12	13	16	21	44	52	42	68	351
Mhow	27	14	24	13	5	12	21	39	31	27	18	10	241
Sadra . . . .	...	1	3	3	1	...	...	2	3	1	...	...	14
Agar	16	3	6	...	1	1	4	3	15	14	3	2	68
Goonna	8	2	2	1	2	2	1	8	34	30	25	5	120
Sirdarpore . . . .	...	...	3	4	2	2	8	5	20	19	18	17	98
Barwani . . . .	...	...	2	2	...	1	1	1	...	2	...	...	9
Jhabwa . . . .	...	1	1	...	...	...	...	...	...	1	...	1	4
Alirajpore . . . .	...	1	1	...	...	...	...	...	...	...	3	...	5
Kherwara	1	...	4	...	2	...	1	3	10	11	5	2	39
Oodeypore	2	...	...	2	...	...	...	...	2	1	1	...	8
Kotra	1	...	1	...	...	...	2	2	10	11	1	1	29
Erinpura	5	2	1	3	1	3	5	8	14	16	26	17	101
Deoli	5	...	5	10	...	1	2	6	7	3	8	11	58
Jhalawar	7	3	1	...	...	...	...	2	2	3	...	...	18
Ajmere	3	1	4	8	5	13	8	12	15	15	3	4	91
Beawar . . . .	...	3	...	...	...	...	...	...	...	...	...	...	3
Sambhar . . . .	...	...	...	...	...	...	...	...	1	...	1	...	2
Deesa	9	4	3	10	12	16	11	10	16	9	5	27	132
Ahmedabad	4	11	35	2	4	2	2	2	46	8	17	8	141
Rajkot	2	3	2	3	...	3	3	16	52	25	28	15	152
Bhuj	5	1	1	1	...	2	3	...	2	...	1	3	19
Baroda	26	1	11	12	6	7	7	13	44	26	17	18	188
Surat	7	3	...	...	...	...	...	...	...	...	...	...	10
GROUP VIII.—SOUTH EAST RAJPUTANA, CENTRAL INDIA AND GUJARAT	170	88	204	141	87	107	119	219	605	402	421	352	2,915
Nasik . . . .	...	...	...	...	...	...	...	1	...	...	2	...	3
Jubbulpore	2	3	4	8	8	14	44	104	169	105	66	83	610
Saugor	42	16	14	16	21	19	29	85	344	299	182	148	1,215
Sambalpur	6	1	3	4	1	10	3	21	17	8	2	1	77
Kamptee	26	...	...	4	...	1	4	11	47	34	28	59	214
Sitabaldi	4	...	1	...	...	1	3	2	4	6	6	3	30
Raipur	18	3	5	...	...	1	1	2	10	15	10	4	69
Sutna	1	1	...	...	...	2	1	1	3	4	1	...	14
Asirgarh	1	7	...	...	...	2	...	...	...	1	1	2	14
Malegaon	5	1	2	1	...	1	2	4	...	1	1	2	20
Ahmednagar	16	5	5	13	3	21	11	12	4	2	1	1	94
Sirur	13	12	7	2	4	4	6	11	10	11	29	5	114
Poona	53	56	39	55	106	170	105	95	63	76	107	78	1,003
Kirkee	46	31	29	57	89	221	80	63	41	36	39	26	758
Satara	76	66	17	8	7	15	9	5	3	5	2	15	228
Belgam	3	2	11	4	6	16	8	10	5	6	8	1	80
Ellichpur	75	33	17	22	9	10	20	46	60	46	31	36	405
Aurangabad	27	13	23	7	8	12	19	21	29	25	20	29	233
Jalna	8	6	8	5	5	10	6	14	26	57	40	17	202
Hingoli	50	21	19	16	6	8	20	19	64	44	18	21	306
Mominabad	12	7	20	25	11	7	9	23	31	24	13	22	204
Bolarum	9	17	14	34	15	11	7	7	10	10	17	12	163
Raichur	3	5	11	5	3	2	...	1	8	5	2	4	49
Secunderabad	56	40	70	48	43	71	90	74	104	75	78	102	851
GROUP IX.—DECCAN	552	346	319	334	345	629	477	632	1,052	895	704	671	6,956

TABLE XXXVI—*concluded.*

REMITTENT FEVER by months, stations,
groups and commands.

ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
3	1	8	1	1	1	5	1	1	4	2	..	2
9	1	3	1	3	2	..	1	1	6	1	..	48
3	1	2	1	2	3	2	4	15	5	5	2	28
..	1	1	..	..	..	..	..	1	..	1	..	45
1	1	1	..	3	1	..	..	1	..	..	..	4
9	2	5	3	4	9	3	7	6	4	..	2	8
..	1	3	2	3	5	..	6	12	14	5	8	54
1	..	..	1	..	..	..	..	..	1	1	..	59
..	..	..	..	..	..	..	..	1	..	..	3	3
6	1	1	1	3	1	1	3	5	4	1	11	4
1	..	..	1	..	4	4	1	3	1	1	..	38
1	..	..	..	..	..	..	..	..	..	..	1	16
2	..	..	..	..	..	..	..	..	..	1	..	2
..	..	1	..	..	1	..	..	1	..	1	1	3
1	..	2	..	..	2	..	1	1	..	1	..	5
37	9	27	11	19	30	15	45	48	38	20	28	327
..	2	1	..	..	..	..	..	1	..	..	1	5
..	..	..	..	..	..	1	1	..	3	2	..	7
..	1	..	..	..	..	..	..	1	1	1	..	1
1	1	..	..	..	..	..	..	1	..	..	..	4
2	4	3	..	..	..	..	..	1	..	..	1	3
..	1	..	..	..	..	..	1	..	..	1	..	11
..	..	..	..	..	..	..	..	..	..	..	..	3
..	1	..	..	..	..	..	..	1	1	2	..	5
..	..	..	..	..	..	..	..	1	..	..	..	1
..	..	..	..	..	..	..	..	..	..	2	..	2
..
..
..
..	..	1	..	..	..	..	..	..	..	..	..	1
1	2	..	1	..	2	2	1	1	..	2	..	12
2	1	2	9	2	..	..	..	1	..	..	..	17
..	1	..	..	..	..	..	..	..	..	..	..	1
..	..	2	5	1	1	..	..	1	2	..	1	13
..
..
1	..	..	..	1	2	3	1	2	..	7	..	16
..	..	3	2	1	3	3	1	10	3	1	..	24
..	1	..	..	..	..	..	..	..	1	3	3	4
1	..	1	..	..	..	1	..	1	..	..	..	3
..	1	..	..	..	1	1	..	1	3	..	..	7
..
8	16	10	18	6	5	10	5	22	10	14	16	140
..	..	..	..	..	..	..	..	..	..	..	..	2
1	..	2	..	..	..	..	..	1	..	..	..	3
..	1	4	..	3	1	..	..	3	2	..	1	15
..	..	..	..	..	..	..	2	1	..	1	..	1
..	..	1	..	..	..	..	1	..	1	..	..	5
1	..	..	..	..	..	..	..	..	..	..	..	3
2	..	1	7	3	4	3	4	3	3	3	..	7
3	4	2	3	2	8	12	8	15	10	9	5	28
..	..	..	..	2	4	1	1	2	..	..	..	81
..	1	..	..	..	1	..	..	1	..	..	..	10
..	3	1	2	..	2	..	..	..	..	..	..	3
1	1	2	..	2	3	4	1	3	..	5	..	5
..	..	..	..	..	..	..	..	..	..	..	..	22
3	1	1	3	1	..	..	1	..	4	1	1	16
1	1	..	5	5	2	2	1	4	3	5	3	4
..	1	1	..	..	..	..	..	..	1	1	1	32
2	..	1	2	..	1	2	2	8	1	1	2	3
15	14	19	25	18	26	26	17	46	25	26	13	270

STATIONS.	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.													ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Thana . . . .	...	1	...	1	...	2	3	...	2	1	4	2	16	...	...	...	...	...	...	...	...	...	...	...	...	...
Bombay	25	15	16	10	12	30	55	27	23	19	15	10	257	4	10	5	13	5	3	5	2	10	9	3	8	77
Cannanore . . .	13	3	3	1	1	1	4	2	7	4	7	6	52	...	...	...	...	...	...	...	...	...	...	...	...	...
Trichoor . . . .	...	2	...	...	...	...	...	...	...	...	1	2	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Quilon	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Trivandrum . . .	...	...	...	...	1	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP X.—WEST-ERN COAST . .	39	21	19	12	14	34	62	29	32	24	27	20	333	4	10	5	13	5	3	5	2	10	9	3	9	78
Bangalore . . .	24	20	21	20	38	53	23	24	20	15	20	16	294	1	1	1	...	3	2	...	...	...	...	...	1	9
Bellary	37	14	33	18	9	8	18	22	14	12	14	16	215	...	...	1	...	1	...	...	...	...	...	...	...	2
Trichinopoly . .	6	18	21	13	10	4	4	4	28	20	27	26	181	...	...	...	...	...	...	...	...	...	...	...	...	1
Madras	16	12	8	10	3	7	7	7	15	5	4	12	106	3	2	2	1	...	...	...	...	3	...	...	...	11
St. Thomas' Mount	1	2	...	...	...	...	3	1	2	5	6	12	32	...	...	...	...	...	...	...	...	...	...	...	...	1
Vizianagram . .	10	18	23	5	8	5	12	17	11	10	5	5	129	...	...	...	...	...	...	...	...	...	...	...	...	...
Berhampur . . .	...	1	...	...	1	...	1	2	6	5	2	6	24	...	...	...	1	...	...	...	...	1	1	1	2	6
GROUP XI.—SOUTH-ERN INDIA . .	94	85	106	66	69	77	68	77	96	72	78	93	981	4	3	4	2	4	2	...	...	4	1	1	5	30
Kohima	7	6	2	10	12	23	13	39	41	18	10	13	194	...	...	...	...	2	...	...	...	...	...	...	...	2
Darjeeling . . .	1	4	...	...	1	1	6	4	2	...	4	4	27	...	...	...	...	...	...	...	...	...	...	...	...	...
Gantak	1	...	1	...	1	...	1	...	...	1	1	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Almora	5	5	1	...	...	13	8	3	8	1	1	9	54	...	2	...	2	3	9	7	10	17	13	2	3	68
Naini Tal	2	5	...	...	4	3	3	2	5	1	3	...	28	...	...	...	...	...	1	...	...	...	...	...	...	2
Ranikhet . . . .	...	...	1	...	...	1	3	...	...	...	...	...	5	...	...	...	...	...	...	...	...	1	...	...	...	1
Lansdowne . . .	60	23	36	50	43	64	57	65	53	129	74	53	707	...	1	4	6	4	4	1	1	4	1	2	1	29
Simla . . . .	...	...	1	...	...	1	3	3	1	2	...	...	11	...	...	...	...	1	...	...	...	1	1	...	...	3
Jutogh . . . .	...	...	1	7	6	2	...	3	8	6	2	1	36	...	...	...	...	...	1	1	...	1	...	1	...	4
Dharmasala . .	6	53	17	28	57	36	34	73	109	66	24	53	556	...	...	2	...	1	...	3	1	...	1	3	4	15
Kangra	1	...	...	1	...	...	1	1	4	...	...	...	8	...	...	...	...	...	1	...	...	...	...	...	...	1
Bakloh	46	33	40	19	22	17	14	25	38	18	11	31	314	1	2	2	9	...	5	6	12	20	3	1	8	69
Murree . . . .	...	...	1	...	...	1	2	1	7	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...
Khyragully . . .	...	...	...	...	...	...	...	1	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Baragully . . .	...	...	...	...	1	1	...	1	...	2	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalabagh . . . .	...	...	...	...	2	...	...	1	5	1	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Gilgit . . . .	...	...	...	...	...	...	...	...	1	9	9	3	22	1	...	...	...	...	1	...	...	...	2	1	1	6
Abbottabad . .	54	45	95	49	14	72	106	159	269	147	91	45	1,146	5	1	3	7	4	6	2	4	1	...	4	...	37
Cherat . . . .	...	...	...	2	...	...	...	...	...	1	2	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Kurram	15	3	9	7	6	9	8	6	9	9	5	6	92	34	3	6	3	1	2	...	...	1	...	1	...	51
Sarwekai . . . .	...	...	...	...	1	2	47	35	14	2	3	1	105	...	...	...	...	...	...	...	...	...	...	...	...	1
Wana	2	...	1	2	10	51	232	188	186	109	59	26	866	3	...	1	...	3	4	4	...	2	3	...	1	21
Quetta	21	27	27	107	75	66	130	128	189	140	268	48	1,226	5	...	6	6	19	7	7	2	8	2	...	...	62
Loralai	39	13	13	14	21	16	40	160	230	97	53	47	743	...	...	...	...	...	...	1	3	7	4	5	3	23
Peshin	1	...	...	1	1	2	3	3	11	8	5	14	49	...	...	...	...	...	...	...	...	...	...	...	...	1
Chaman	1	1	13	12	8	8	11	11	17	10	6	8	106	...	...	4	1	...	2	2	1	6	2	...	3	21
Fort Sandeman .	57	32	9	15	17	83	63	72	168	128	44	29	717	2	2	...	...	2	1	1	2	4	...	...	...	14
Mount Abu . . .	...	3	1	1	...	...	1	...	10	33	9	14	72	...	...	...	...	...	...	...	...	...	...	...	...	...
Ootacamund . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Shillong and outposts . .	18	10	10	14	8	8	5	6	5	8	5	14	111	4	2	...	1	...	...	...	1	...	...	...	...	8
Maymyo	6	5	4	1	2	...	...	1	6	3	1	1	30	...	...	...	...	...	...	...	...	...

NATIVE TROOPS, 1896.

TABLE XXXVII.

PNEUMONIA by months, stations, groups and commands.

TABLE XXXVIII.

DYSENTERY by months, stations, groups and commands.

STATIONS.*	ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												TOTAL.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Port Blair . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	2
Moulmein . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	3	2	4	13	7	2	3	3	2	1	42
Rangoon	1	...	1	...	...	...	...	...	...	...	1	...	3	3	...	5	10	5	17	24	14	8	4	10	7	107
GROUP I.—BURMA COAST AND BAY ISLANDS	1	...	1	...	...	...	...	...	...	...	1	...	3	4	1	8	12	9	31	32	16	11	7	12	8	151
Thayetmyo . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	2	2	...	3	4	4	8	1	6	3	3	8	3	45
Meiktila . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	3	3	2	...	...	1	1	1	12
Mindat Sakan . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	1	1	2	1	8	3	7	1	2	1	27
Myingyan . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	6	1	2	...	...	2	...	13
Kan . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Haka . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	1	...	2	...	...	...	...	8
Falam . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	2	1	1	1	...	...	...	1	1	9
Kalewa . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	2	...	...	1	1	1	7
Kyaukmyaung . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	2
Bhamo	1	...	1	1	...	...	...	...	...	...	...	...	3	5	1	5	5	...	1	4	7	6	12	2	2	50
Thabeitkyin . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	2	1	3	...	...	1	...	4	1	...	...	12
Shwebo . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	3	...	...	...	...	8
Fort Dufferin	2	1	1	...	1	...	1	...	...	...	...	1	7	2	1	5	...	...	1	2	1	...	2	...	...	14
Loikaw . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	3	1	...	...	1	1	1	1	10
Fort Stedman . . . . .	...	...	2	2	...	...	...	...	...	...	...	...	4	...	2	2	...	1	2	1	2	...	...	2	...	12
Bampon	1	1	...	...	...	...	...	...	1	...	...	...	3	...	...	...	...	...	1	1	...	...	...	...	...	2
Thamakan . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	1	...	4
Toungyi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Keng Tung . . . . .	...	...	...	...	...	...	...	1	...	...	1	...	2	1	...	1	5	3	3	2	6	2	...	1	2	26
GROUP II.—BURMA INLAND	4	4	4	3	1	...	1	1	3	...	1	2	24	17	8	21	22	19	27	34	31	27	22	19	16	263
Silchar . . . . .	...	...	...	1	...	...	1	...	...	...	...	...	2	...	1	2	2	4	3	4	6	12	5	14	1	54
Dibrugarh . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	4	...	6	2	2	1	...	5	2	12	3	37
Manipur	1	4	2	...	3	2	...	...	...	...	...	...	12	2	1	3	4	10	4	12	10	6	...	5	4	61
GROUP III.—ASSAM	1	4	2	1	3	2	1	1	...	...	...	...	15	2	6	5	12	16	9	17	16	23	7	31	8	152
Fort William	11	6	5	1	...	1	...	...	1	...	...	...	25	10	6	22	2	2	1	5	2	3	...	22	24	99
Alipore and Ballygunge . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	1	2	3	1	4	4	6	4	5	1	7	11	49
Dum-Dum . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	4	1	...	7
Barrackpore	1	3	1	...	...	1	3	...	1	...	...	1	11	3	...	3	2	2	1	5	3	3	1	2	6	31
Buxa . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	1	3	2	7	...	...	...	1	2	13	29
Cuttack	1	2	1	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IV.—BENGAL AND ORISSA	13	12	7	2	...	2	3	...	2	1	...	1	43	14	8	29	8	10	15	16	9	11	3	37	55	215
Doranda . . . . .	...	...	1	...	...	...	...	...	...	...	...	1	2	1	1	4	1	1	2	4	1	1	1	1	1	19
Dinapore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	1	...	1	1	1	...	...	2	2	10
Benares . . . . .	...	1	1	1	...	...	...	...	1	...	1	1	6	4	1	1	1	3	...	...	1	2	6	...	3	22
Fyzabad . . . . .	...	...	1	...	...	1	...	...	1	...	1	2	6	2	2	1	...	1	2	...	1	4	2	15	6	36
Lucknow	1	4	...	...	2	...	...	...	...	1	...	2	10	1	1	3	...	1	...	...	1	1	2	4	24	38
Fatehgarh . . . . .	...	...	...	...	...	...	...	...	...	...	1	1	2	1	1	2	...	1	...	...	...	...	...	1	...	6
Cawnpore	3	...	...	2	1	1	...	...	...	...	...	3	10	5	...	2	5	2	...	...	...	1	4	6	16	41
Allahabad	1	...	1	1	...	...	...	...	...	1	...	...	4	2	...	...	5	2	...	1	2	3	5	10	22	52
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	5	5	4	4	3	2	...	...	2	2	3	10	40	18	6	14	13	11	5	6	7	13	20	36	75	224
Bareilly . . . . .	...	2	...	...	...	...	...	...	...	...	1	3	3	1	3	1	1	...	...	2	2	3	1	2	...	16
Dehra Dun	2	1	1	...	1	...	...	...	...	...	4	3	12	5	1	3	2	...	2	1	...	1	2	2	2	21
Roorkee	4	...	...	...	1	1	1	...	...	...	...	7	7	...	...	...	1	2	...	1	1	...	...	...	...	5
Meerut	1	5	4	3	1	2	...	...	...	1	5	3	25	7	11	2	4	1	2	3	1	...	4	...	7	42
Delhi	9	2	3	1	...	...	...	...	2	2	2	21	21	1	...	...	...	...	2	...	...	2	1	...	...	6
Umballa	5	5	4	1	...	...	...	...	1	1	2	3	22	1	...	...	2	...	2	...	...	...	2	8	2	17
Ludhiana . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Jullundur	5	4	...	...	...	1	1	...	...	...	1	2	14	...	...	...	...	...	1	...	1	2	1	2	9	16
Ferozepore	3	...	3	2	...	...	...	...	...	...	1	4	13	2	...	3	2	2	3	...	1	5	6	4	1	29
Sialkot	29	9	6	...	...	1	...	...	...	3	2	4	54	1	2	1	...	...	1	4	3	5	2	5	3	27
Amritsar	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...	...	...	...	2
Meean Meer	11	4	3	1	...	1	...	...	2	2	4	12	40	3	2	2	1	...	2	1	...	3	4	4	...	22
Jhelum	5	...	...	...	...	...	...	...	...	...	...	1	6	1	1	1	2	...	1	1	...	2	2	3	1	15
Rawalpindi	6	8	4	1	1	1	1	3	...	1	6	4	36	5	3	3	6	3	4	...	8	12	9	15	13	81
Attock . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1	...	1	1	5	1	...	...	10
GROUP VI.—UPPER SUB-HIMALAYAN	82	40	28	9	4	7	4	3	3	10	27	39	256	27	24	16	20	8	20	13	20	38	38	46	40	310

* Stations where neither Pneumonia nor Dysentery occurred are not shown in these tables. For the annual ratios see Table XXVIII.

STATIONS.	ADMISSIONS FROM PNEUMONIA IN EACH MONTH.													ADMISSIONS FROM DYSENTERY IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Bikanir . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	2
Mooltan	14	3	3	...	2	...	1	...	...	...	3	5	31	3	1	4	2	6	2	3	4	8	4	9	2	48
Nowshera	18	3	3	1	2	...	2	...	2	1	4	5	41	2	...	...	...	...	...	1	2	1	1	...	7	
Peshawar	29	9	9	3	2	...	2	1	...	2	6	8	71	4	7	4	3	1	2	3	6	7	5	7	6	55
Fort Jamrud	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	2	1	1	...	...	...	1	...	1	...	7
Mardan	8	3	3	2	1	1	2	...	1	3	1	1	26	1	...	1	4	2	2	1	5	3	3	7	7	36
Kohat and outposts	32	5	12	1	1	...	4	2	...	5	2	3	67	17	7	10	5	2	10	16	12	27	12	15	12	145
Edwardesabad and outposts	35	13	5	7	2	1	...	1	...	...	2	5	71	21	5	8	8	3	3	5	3	7	3	4	4	74
Jandola	1	...	...	1	...	...	...	...	...	...	...	...	2	2	1	...	1	2	3	...	1	4	6	3	2	25
Khajuri Kach . . . . .	...	...	1	...	...	...	...	1	1	...	...	1	4	1	1	1	1	...	3	1	9	15	3	3	2	40
Dera Ismail Khan and outposts	13	7	4	3	...	3	...	1	2	2	7	7	49	3	4	3	1	2	2	4	5	6	7	3	7	47
Dera Ghazi Khan „	7	4	8	3	...	2	1	...	...	1	2	1	29	4	3	4	5	3	...	2	4	10	2	3	3	43
Sibi . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	2	...	1	...	...	...	...	5	...	9
Jacobabad	5	1	1	...	...	...	...	...	...	...	...	3	10	3	1	...	...	...	...	1	2	...	1	2	...	10
Hyderabad	3	1	1	...	...	...	...	...	...	...	...	...	5	3	1	1	...	3	4	3	1	4	3	2	...	28
Kurrachee . . . . .	...	1	1	...	...	...	...	...	...	...	...	...	2	1	1	1	...	...	1	2	3	1	5	1	...	22
GROUP VII.—N.-W. FRON- TIER, INDUS VALLEY AND NORTH-WESTERN RAJPUTANA	166	50	51	21	10	7	12	6	6	14	27	40	410	65	33	40	33	25	33	42	56	100	52	65	54	598
Agra	1	2	...	...	...	...	...	...	1	1	8	7	20	2	1	3	1	...	2	1	1	1	1	42	8	63
Jhansi . . . . .	...	...	1	...	...	...	...	...	...	...	...	2	3	...	...	3	1	2	1	2	6	7	11	15	...	55
Nowgong	2	1	16	4	3	...	...	...	...	1	5	3	35	1	1	2	6	3	1	...	6	8	5	6	4	43
Nasirabad . . . . .	...	1	1	...	...	...	...	1	2	...	1	4	10	...	...	1	...	...	...	1	8	4	2	1	...	19
Neemuch . . . . .	...	1	3	1	2	...	...	...	...	...	1	...	8	...	...	1	1	1	...	1	3	...	...	...	2	9
Indore	1	1	1	1	...	...	...	...	...	...	1	...	5	1	1	...	2	...	4	1	1	1	2	1	...	14
Sehore and outposts	2	1	1	1	...	...	...	...	...	1	...	...	6	...	...	...	...	2	2	2	6	2	5	1	3	25
Mhow	10	5	1	4	1	1	...	...	...	2	...	2	26	1	1	1	4	1	4	8	4	...	1	2	7	34
Sadra . . . . .	...	1	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...	1	...	...	...	...	...	...	1
Agar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2	5
Goon	8	...	...	...	...	...	...	...	...	...	...	...	8	...	1	...	...	1	1	2	4	2	...	2	1	14
Sirdarpore	5	1	...	...	1	...	...	...	1	1	...	2	11	...	...	...	...	...	2	...	...	1	1	1	...	5
Barwani	1	1	...	...	...	...	...	...	...	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhabwa . . . . .	...	1	...	...	...	...	...	...	...	...	1	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Alirajpore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Kherwara	9	3	3	1	...	2	...	...	...	2	6	3	29	1	...	...	...	...	1	...	...	...	...	...	...	2
Oodeypore . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1
Kotra . . . . .	...	1	1	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	1	...	...	...	...	...	1
Erinpura	5	5	3	...	...	...	...	...	...	3	4	2	22	...	...	...	1	...	...	...	1	...	...	...	...	8
Deoli	1	...	...	...	...	...	...	...	...	...	1	...	2	...	...	1	...	...	...	2	5	4	1	1	1	15
Jhalawar	2	2	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	1	...	...	...	...	...	1
Ajmere	10	6	3	1	...	1	...	...	...	...	...	...	21	1	...	...	...	...	...	5	1	...	...	1	...	8
Beawar . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Sambhar	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Deesa	1	1	2	...	1	1	1	...	...	...	2	...	9	4	1	...	...	...	...	9	6	2	...	1	2	25
Ahmedabad	3	2	2	...	...	...	...	...	...	...	...	1	8	...	...	...	...	...	...	1	...	1	1	...	...	4
Rajkot . . . . .	...	...	1	1	...	...	...	...	...	...	2	...	4	...	...	1	1	1	1	1	...	1	...	...	...	6
Bhuj	1	2	1	2	2	1	...	...	...	...	1	1	11	...	...	...	1	1	3	1	4	...	1	...	...	11
Baroda . . . . .	...	...	2	1	...	...	1	...	...	1	...	2	7	3	...	3	...	2	2	4	4	...	2	...	...	20
Surat . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
GROUP VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA AND GUJARAT	63	38	42	17	10	6	2	2	4	12	35	31	262	14	7	19	18	14	19	43	67	38	29	74	49	391
Nasik . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	2	1	...	...	...	3
Jubbulpore . . . . .	...	2	2	...	1	...	1	...	...	...	...	1	7	1	...	2	4	3	1	2	6	4	2	7	1	33
Saugor	14	4	3	1	...	1	2	...	...	5	7	4	41	4	...	1	6	7	7	3	11	5	5	7	6	62
Sambalpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	11
Kamptee	3	1	...	...	...	...	...	1	...	...	...	1	6	...	...	...	...	...	...	1	...	...	...	...	...	1
Sitabaldi . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	1	1	1	1	...	...	4
Raipur . . . . .	...	2	1	...	...	...	...	...	...	...	...	...	3	...	...	1	...	...	2	3	1	...	2	...	...	9
Sutna . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...	1	2	...	1	...	1	...	...	...	6
Malegaon . . . . .	...	...	...	1	...	1	...	...	...	...	...	...	2	...	...	...	1	...	...	...	2	...	...	...	...	3
Ahmednagar . . . . .	...	...	...	...	...	...	...	2	...	...	...	...	2	2	...	...	2	1	1	1	1	...	1	...	...	10
Sirur . . . . .	...	...	...	...	...	1	...	...	...	1	...	...	2	3	...	3	1	...	3	6	5	5	2	5	1	34
Poona	4	8	8	3	3	2	2	...	1	1	6	5	43	2	1	6	7	7	7	29	17	6	6	5	8	101
Kirkee	3	4	5	3	...	...	...	...	2	1	...	1	19	...	1	3	6	4	4	8	5	3	4	4	5	47
Satara . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	2	...	1	1	...	...	...	...	6
Belgam . . . . .	...	1	...	...	...	...	...	2	...	...	...	1	4	...	2	1	...	2	...	...	1	1	...	...	...	7
Ellichpur	6	3	1	...	...	1	1	1	1	2	3	3	22	1	2	5	1	...	...	4	9	3	3	...	...	28
Aurangabad	6	6	2	1	...	1	...	1	2	2	1	2	24	...	...	2	...	1	...	4	6	2	1	...	3	19
Jalna	2	4	4	...	...	...	...	1	1	...	1	...	13	...	...	...	...	1	...	...	2	...	1	...	2	6
Hingoli	13	6	5	2	...	...	...	...	1	2	...	1	30	...	...	1	3	...	...	5	5	8	4	...	...	26
Mominabad . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	...	3	...	...	...	3	5	2	1	...	...	1	15
Bolarum	1	1	3	1	1	...	...	1	...	1	2	...	11	1	7	5	2	1	...	10	11	3	6	...	...	46
Raichur . . . . .	...	1	...	3	...	...	...	...	1	1	...	3	9	2	2	2	2	...	1	2	12	6	...	2	1	32
Secunderabad	4	4	7	1	2	3	...	2	1	7	5	9	45	5	2	8	1	1	2	9	9	16	8	5	10	76
GROUP IX.—DECCAN	56	48	42	16	7	11	6	9	14	23	25	31	288	21	21	41	39	31	28	91	112	78	47	38	38	585
Thana . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	2	1	...	1	1	...	...	1	4	...	...	...	...	8
Bombay	1	3</																								

TABLE XXXVII—continued.

PNEUMONIA by months, stations, groups and commands.

STATIONS.	ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Bangalore	3	1	3	1	...	1	...	...	2	2	3	1	17
Bellary	1	2	1	1	2	...	...	2	...	...	1	...	10
Trichinopoly . . . . .	...	2	...	...	...	...	...	...	...	...	...	...	...
Madras	2	2	2	...	...	...	...	...	...	1	...	1	8
St. Thomas' Mount . . . . .	...	...	...	...	...	1	...	...	...	...	1	...	2
Vizianagram . . . . .	...	2	...	...	...	2	1	...	...	...	...	...	5
Berhampur . . . . .	...	...	...	...	...	1	...	1	...	...	1	...	3
GROUP XI.—SOUTHERN INDIA	6	7	6	2	2	5	1	3	2	3	6	2	45
Kohima	1	1	1	...	...	...	...	...	1	...	1	4	9
Darjeeling	1	1	...	...	...	...	...	1	...	...	...	...	2
Gantak . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1
Almora . . . . .	...	...	2	1	...	...	...	...	2	2	6	4	17
Naini Tal . . . . .	...	...	...	...	...	...	...	...	1	2	2	2	5
Lansdowne	3	5	8	9	2	1	5	1	...	...	5	3	42
Simla . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Jutogh . . . . .	...	...	...	...	...	2	1	...	...	...	1	1	5
Dharmasala	2	...	...	5	3	2	...	...	...	...	...	5	17
Bakloh	3	1	7	5	1	1	1	...	...	...	1	3	23
Murree . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1
Khyragully . . . . .	...	...	...	...	...	...	1	2	...	...	...	...	3
Baragully . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Gilgit . . . . .	...	...	...	...	...	...	...	...	...	3	...	...	3
Abbottabad	26	4	7	8	1	...	...	1	...	3	2	8	60
Cherat	2	...	...	...	...	...	...	...	...	...	...	...	2
Kurram	10	...	...	...	...	...	...	...	...	...	...	1	11
Sarwekai . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Wana	28	5	4	1	...	1	...	2	2	4	5	11	63
Quetta	3	2	3	5	2	4	1	...	1	1	1	1	24
Loralai	6	3	9	...	...	...	...	...	1	...	...	5	24
Peshin . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1
Chaman	1	...	...	...	...	...	...	...	...	...	...	1	2
Fort Sandeman	7	5	4	1	1	2	1	...	...	1	2	...	24
Mount Abu . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Ootacamund . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Shillong and outposts . . . . .	...	3	2	2	6	2	...	...	1	...	1	...	17
Maymyo . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XII.—HILL STATIONS	93	30	48	37	17	15	10	7	7	16	27	49	356
Chitral	2	5	...	...	2	2	5	1	4	3	5	2	31
Malakand	20	10	8	3	1	...	...	1	1	1	4	4	53
Marching in Bengal	7	8	5	...	...	...	...	...	...	...	3	...	23
„ Punjab	1	5	1	4	5	...	...	...	...	...	1	12	29
„ Madras	1	...	...	...	...	...	...	...	...	...	...	2	3
„ Bombay	11	10	3	...	1	...	...	...	...	...	...	1	26
Central India and Rajputana Corps marching	8	...	...	...	...	...	...	...	...	...	...	...	8
Hyderabad Contingent marching . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Aden . . . . .	...	...	...	...	1	...	...	...	1	...	1	1	4
Tochi Column	13	1	5	1	...	...	2	...	1	...	...	4	27
Suakin Field Force . . . . .	...	...	...	...	...	3	...	1	...	3	1	...	8
Mombasa „ . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1
INDIA	554	281	260	120	68	62	47	35	53	89	164	234	1,967
BENGAL COMMAND	64	58	62	28	21	13	13	3	9	16	49	53	389
PUNJAB „	331	108	100	53	25	19	25	16	17	35	62	117	908
MADRAS „	16	17	19	6	6	8	2	8	8	10	13	16	129
BOMBAY „	63	56	52	23	14	13	6	3	12	10	18	30	300
CENTRAL INDIA AND RAJ-PUTANA CORPS	52	21	11	3	1	3	...	...	1	7	14	9	122
HYDERABAD CONTINGENT	28	21	15	7	1	3	1	4	6	8	7	9	110

TABLE XXXVIII—continued.

DYSENTERY by months, stations, groups and commands.

STATIONS.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Bangalore	4	4	4	4	9	11	18	23	8	2	5	10	102
Bellary	1	3	2	1	...	1	8	2	6	1	1	7	33
Trichinopoly	1	4	6	3	...	...	4	5	2	7	6	4	42
Madras	3	3	2	4	...	1	2	4	2	...	5	3	29
St. Thomas' Mount . . . . .	...	1	...	...	...	2	...	...	1	1	1	1	7
Vizianagram . . . . .	...	1	...	1	1	...	...	...	1	...	...	...	4
Berhampur . . . . .	...	...	...	...	...	...	1	4	1	...	...	...	6
GROUP XI.—SOUTHERN INDIA	9	16	14	13	10	15	33	38	21	11	18	25	223
Kohima . . . . .	...	...	...	1	...	9	6	...	2	...	...	...	18
Darjeeling	2	1	1	...	...	...	3	1	...	1	...	4	13
Gantak	1	...	...	...	...	...	1	...	...	...	...	...	2
Almora . . . . .	...	...	1	...	1	3	2	1	...	...	...	...	8
Naini Tal . . . . .	...	...	...	...	1	1	...	1	...	2	2	...	7
Lansdowne . . . . .	...	1	9	12	8	14	19	18	13	2	1	...	97
Simla . . . . .	...	...	1	...	...	2	...	...	...	...	...	...	...
Jutogh . . . . .	...	...	1	...	...	2	...	...	1	...	...	...	4
Dharmasala	1	...	1	3	6	...	...	2	1	1	1	2	18
Bakloh	2	1	1	...	1	...	3	1	2	...	...	1	15
Murree . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1
Khyragully . . . . .	...	...	...	...	3	1	1	...	1	...	...	...	6
Baragully . . . . .	...	...	...	1	1	...	...	...	...	...	...	...	2
Gilgit	1	1	2	...	...	1	1	...	2	3	2	3	16
Abbottabad	4	4	3	1	4	10	10	12	6	18	...	9	81
Cherat . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	1
Kurram	1	...	...	2	...	1	...	...	...	...	3	1	8
Sarwekai . . . . .	...	...	...	...	1	...	4	13	7	3	1	1	30
Wana . . . . .	...	2	...	3	1	5	9	18	9	4	3	2	56
Quetta	7	2	2	12	5	9	24	14	25	20	16	2	138
Loralai . . . . .	...	...	...	1	1	2	2	1	7	9	8	...	31
Peshin . . . . .	...	...	...	...	1	...	...	...	1	1	1	...	3
Chaman . . . . .	...	...	...	...	...	5	9	3	...	3	2	1	23
Fort Sandeman	7	1	3	7	10	14	7	6	6	5	5	12	83
Mount Abu . . . . .	...	...	2	...	...	...	...	3	...	...	...	...	5
Ootacamund . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1
Shillong and outposts . . . . .	...	...	2	5	3	...	4	1	2	1	2	2	22
Maymyo	1	...	...	2	1	...	1	1	...	...	...	...	7
GROUP XII.—HILL STATIONS	27	13	29	50	49	78	108	95	87	76	47	40	699
Chitral	7	2	1	...	7	38	62	94	53	11	2	5	282
Malakand	4	2	1	8	7	7	37	34	35	23	11	6	175
Marching in Bengal	4	1	1	2	...	...	...	...	...	...	33	4	45
„ Punjab	3	1	...	3	1	...	...	...	2	...	...	4	16
„ Madras	2	1	2	...	1	...	...	...	...	...	1	1	8
„ Bombay	10	7	2	1	...	1	1	27	39	...	10	12	110
Central India and Rajputana Corps marching . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Hyderabad Contingent marching . . . . .	...	...	...	...	...	...	...	...	...	...	...	3	3
Aden	7	10	9	5	4	6	7	6	12	12	16	5	99
Tochi Column	17	5	1	1	3	5	17	25	55	35	18	14	196
Suakin Field Force . . . . .	...	...	...	...	...	23	10	20	27	12	10	...	102
Mombasa „ . . . . .	...	...	4	8	21	17	...	...	...	...	...	...	50
INDIA	277	181	263	275	254	383	580	699	678	413	539	478	5,020
BENGAL COMMAND	63	41	79	79	69	74	89	88	94	67	219	193	1,155
PUNJAB „	111	57	59	66	64	111	189	266	297	176	138	123	1,657
MADRAS „	39	30	55	52	45	79	112	97	77	50	55	62	753
BOMBAY „	58	38	45	61	50	72	143	153	142	84	108	80	1,034
CENTRAL INDIA AND RAJ-PUTANA CORPS	2	1	6	1	3	5	9	25	17	8	7	10	94
HYDERABAD CONTINGENT	4	14	15	8	2	2	28	50	24	16	2	10	175

TABLE XXXIX.

STATISTICS OF REGIMENTS.

A.—Sickness and mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent, Invalided on account of old age.
1	Governor General's Body Guard, Dehra Dun (Local.)	119	110	4'0	2	1763'6 8'40	Admitted Died Invalided	16 1	...	...	...	85	...	...	...	2	...	3	10	4	...	2	...	4	2	194	...
2	1st Bengal Cavalry, Meerut, December, 1894, from Saugor.	619	523	11'5	17	535'4 4'85 6'46	Admitted Died Invalided	...	...	...	...	58	9	...	...	4	4	4	15	3	...	...	...	10	7	280	...
3	2nd Bengal Lancers, Bareilly, February, 1893, from Allahabad.	616	512	10'4	10	554'7 4'87 11'36	Admitted Died Invalided	...	...	...	...	65	20	...	...	...	1	9	8	3	...	...	...	6	4	284	...
4	3rd Bengal Cavalry, Fyzabad, February, 1892, from Cawnpore.	623	534	10'5	6	533'7 6'42 3'21	Admitted Died Invalided	...	1	...	...	54	2	...	1	2	1	12	15	4	...	...	...	10	1	285	...
5	4th Bengal Cavalry, Cawnpore, November, 1891, from Fyzabad.	624	521	7'2	7	320'5 9'62 4'81	Admitted Died Invalided	...	...	1	...	47	12	...	...	...	1	10	11	1	...	1	...	2	3	167	...
6	5th Bengal Cavalry, Nowgong, February, 1893, from Lucknow.	623	522	14'6	8	747'1 3'21 4'82	Admitted Died Invalided	...	1	...	...	155	1	...	...	...	5	13	38	1	...	...	1	38	3	390	...
7	7th Bengal Cavalry, Lucknow, February, 1893, from Bareilly.	615	499	9'2	7	396'8 4'88 4'88	Admitted Died Invalided	9	...	...	...	30	...	...	...	1	7	12	11	3	...	...	2	6	2	198	...
8	8th Bengal Cavalry, Allahabad, January, 1893, from Nowgong.	613	507	10'5	12	428'0 3'26 3'26	Admitted Died Invalided	10	...	...	...	64	1	...	...	...	1	6	6	...	...	1	1	6	2	217	...
9	14th Bengal Lancers, Saugor, January, 1895, from Jullundur.	622	507	21'3	8	1053'3 4'82 6'43	Admitted Died Invalided	1	...	...	...	230	2	...	...	...	3	1	43	4	...	...	2	43	2	534	...
10	Head-Quarters Bengal Sappers and Miners, Roorkee (Local).	1,236	1,040	21'6	23	520'2 8'90 4'85	Admitted Died Invalided	2	...	...	...	173	12	1	...	...	16	15	25	8	...	1	2	36	16	541	...
11	1st Bengal Infantry, Jhansi, February, 1896, from Peshawar.	886	722	25'1	39	1019'4 47'40 13'54	Admitted Died Invalided	56	1	2	...	322	2	...	...	1	18	17	71	...	...	...	...	20	...	736	...
12	2nd Bengal Infantry, Silchar, September, 1894, from Allahabad.	577	504	24'9	32	1847'2 17'33 12'13	Admitted Died Invalided	...	...	...	...	347	3	...	1	...	17	22	115	92	...	...	...	14	42	931	...
13	Wing 2nd Bengal Infantry, Dibrugarh, November, 1894, from Allahabad.	305	258	8'0	5	1135'7 6'56 22'95	Admitted Died Invalided	11	...	...	...	174	12	...	...	...	1	6	22	3	...	...	...	2	5	293	...
14	3rd Bengal Infantry, Allahabad, April, 1896, from Cawnpore.	898	782	18'2	20	590'8 12'25 6'68	Admitted Died Invalided	...	1	2	...	125	3	...	...	5	4	25	51	4	...	1	4	18	16	462	...
15	4th Bengal Infantry, Dinapore, December, 1894, from Fyzabad.	693	595	12'2	11	405'0 5'77	Admitted Died Invalided	6	1	...	...	19	27	...	...	1	1	14	12	...	...	...	...	20	12	241	...

NATIVE TROOPS, 1896.

TABLE XXXIX—continued. STATISTICS OF REGIMENTS.

A.—Sickness and mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
16	Detachment 4th Bengal Infantry, Gantak, January, 1895, from Dinapore.	219	190	2'6	5	278'9 4'57	Admitted Died Invalided	...	...	...	...	6	...	...	...	...	1	4	2	...	...	...	...	6	4	53	...
17	5th Bengal Infantry, Ali- pore, April, 1896, from Al- lahabad.	893	774	25'7	20	932'8 4'48 5'60	Admitted Died Invalided	...	...	1	2	216	16	33	1	3	1	29	37	5	...	3	...	28	11	722	...
18	6th Bengal In- fantry, Meerut, January, 1896, from Fort Wil- liam.	889	774	27'0	40	1408'3 13'50 3'37	Admitted Died Invalided	...	...	1	3	454	3	...	2	4	20	44	29	3	...	...	1	63	5	1,090	...
19	7th Bengal In- fantry, Luck- now, February, 1893, from Upper Burma.	895	761	14'1	16	495'4 5'59 4'47	Admitted Died Invalided	25	...	...	1	109	3	...	...	3	2	13	40	3	...	1	...	20	4	377	...
20	8th Bengal In- fantry, Now- gong, March, 1896, from Saugor.	902	786	24'5	14	687'0 6'65 5'54	Admitted Died Invalided	...	...	...	...	162	7	...	...	1	55	25	19	2	...	...	...	80	8	540	...
21	9th Gurkha Rifles, Lans- downe, Novem- ber, 1894, from Lucknow.	828	733	27'3	3	940'0 8'45	Admitted Died Invalided	3	...	...	...	258	5	...	...	3	10	5	51	4	...	...	...	24	3	689	...
22	10th Bengal Infantry, Be- nares, Decem- ber, 1895, from Barrackpore.	890	787	26'2	28	839'9 11'24 16'85	Admitted Died Invalided	...	...	...	...	211	8	...	3	1	6	38	22	7	...	2	...	36	22	661	...
23	11th Bengal Infantry, Do- randa, Janu- ary, 1894, from Bareilly.	491	434	8'9	4	582'9 10'18 10'18	Admitted Died Invalided	21	...	1	...	120	...	...	1	...	4	12	19	1	...	...	...	3	3	253	...
24	Wing 11th Bengal In- fantry, Buxa, January, 1894, from Bareilly.	405	346	8'8	10	777'5 17'28 4'94	Admitted Died Invalided	...	...	...	...	135	1	...	...	1	2	5	42	1	...	...	...	2	8	269	...
25	12th Bengal In- fantry, Bareilly October, 1895, from Now- shera.	910	709	12'1	14	441'5 3'30 14'29	Admitted Died Invalided	19	...	...	...	105	28	...	...	4	2	4	8	1	...	...	...	18	8	313	...
26	13th Bengal Infantry, Fyza- bad, January, 1895, from Dinapore.	893	732	23'8	18	773'2 10'08 17'92	Admitted Died Invalided	1	...	...	...	133	4	...	1	5	6	23	21	6	...	...	1	80	4	566	...
27	16th Bengal In- fantry, Cawn- pore, April, 1896, from Alipore.	880	786	42'1	28	1190'8 14'77 11'36	Admitted Died Invalided	...	...	...	1	334	41	...	...	1	21	46	57	23	...	...	1	34	43	936	...
28	17th Bengal Infantry, Agra, February, 1893, from Alipore.	902	788	14'6	17	460'7 8'87 2'22	Admitted Died Invalided	...	1	1	1	98	5	2	...	2	5	13	42	9	...	...	...	31	5	363	...
29	18th Bengal In- fantry, Fort William, Janu- ary, 1896, from Benares.	894	782	37'6	44	975'7 6'71 25'73	Admitted Died Invalided	...	1	...	1	257	5	7	2	5	12	23	79	36	...	1	4	24	10	763	...

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
30	29th Punjab Infantry, Delhi, April, 1896, from Malakand.	695	527	10'0	28	723'0 10'07 1'44	Admitted Died Invalided	...	...	...	...	208	14	...	...	2	6	11	5	1	1	1	1	5	8	381	...
31	39th Garhwalis, Lansdowne, March, 1893, from Fort White.	887	791	37'0	13	1188'4 16'91 5'64	Admitted Died Invalided	...	...	5	...	321	19	...	1	2	32	24	42	23	...	2	...	92	7	940	...
32	42nd Gurkha Rifles, Shillong, January, 1895, from Kohima.	926	820	26'1	5	620'7 2'16 5'40	Admitted Died Invalided	...	...	...	...	112	9	...	1	11	17	22	22	1	...	2	1	71	3	509	...
33	43rd Gurkha Rifles, Kohima, November, 1894, from Manipur.	901	799	38'1	3	1000'0 19'98 11'10	Admitted Died Invalided	62	1	...	...	230	6	6	...	7	11	32	37	1	...	2	3	75	17	799	...
34	44th Gurkha Rifles, Manipur, December, 1894, from Shillong.	908	801	41'8	...	1053'7 37'44 17'62	Admitted Died Invalided	3	36	...	3	296	12	23	...	2	10	11	42	39	...	1	...	114	59	844	...
35	Wing 6th Madras Infantry, Cuttack, December, 1894, from Madras.	400	351	4'9	11	276'4 5'00 27'50	Admitted Died Invalided	...	1	...	...	19	...	...	...	...	4	5	...	2	...	...	...	9	6	97	...
36	8th Madras Infantry, Barrackpore, January, 1896, from Bangalore.	821	764	17'0	22	634'8 10'96 2'44	Admitted Died Invalided	...	...	...	...	134	...	96	...	...	11	6	31	4	...	2	...	16	2	485	...
37	7th Bombay Infantry, Jubbulpore, March, 1896, from Raipur.	785	710	19'7	3	1200'0 3'82 17'83	Admitted Died Invalided	12	...	...	...	588	1	...	2	2	4	21	25	...	...	...	...	64	6	852	...
38	12th Bombay Infantry, Saugor, February, 1896, from Kamptee.	797	724	40'0	15	2034'5 10'04 26'35	Admitted Died Invalided	2	...	...	...	1054	1	2	3	1	32	13	33	9	...	1	15	98	2	1,473	...
39	1-2nd Gurkha Rifles, Dehra Dun (Local).	920	759	22'7	11	786'6 13'04 13'04	Admitted Died Invalided	...	4	3	...	156	14	22	...	11	7	26	5	1	...	...	...	60	12	597	...
40	2-2nd Gurkha Rifles, Dehra Dun (Local).	916	736	17'8	28	784'0 15'28 5'46	Admitted Died Invalided	...	2	...	...	162	32	75	...	7	8	15	9	4	...	2	...	41	12	577	...
41	1-3rd Gurkha Rifles, Almora (Local).	906	808	17'8	...	386'1 14'35 2'21	Admitted Died Invalided	...	...	1	...	60	72	2	...	1	25	14	8	1	1	8	...	36	4	312	...
42	2-3rd Gurkha Rifles, Lansdowne, December, 1892, from Almora.	593	432	13'6	3	842'6 13'49 3'37	Admitted Died Invalided	...	...	...	...	169	7	...	...	3	5	7	12	46	...	...	...	3	3	364	...
43	No. 5 Bombay Mountain Battery, Dehra Dun, January, 1896, from Bhamo.	144	121	5'1	10	719'0 ... 138'89	Admitted Died Invalided	...	...	...	...	3	1	...	...	...	1	8	4	3	...	...	1	11	11	87	...
44	Drivers, No. 9 Mountain Battery, Royal Artillery, Darjeeling, January, 1895, from Rawalpindi.	163	135	3'2	5	733'3 12'27 6'13	Admitted Died Invalided	...	...	...	...	27	...	...	...	...	2	9	13	5	...	...	...	1	3	99	...
45	6th Bengal Cavalry, Jullundur, January, 1895, from Meerut.	615	487	6'3	3	373'7 16'26 ...	Admitted Died Invalided	...	...	...	...	53	3	...	...	...	6	7	3	1	...	1	...	2	3	182	...

NATIVE TROOPS, 1896.

TABLE XXXIX—continued. STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
46	9th Bengal Lancers, Rawalpindi, December, 1893, from Peshawar	624	505	16'0	11	772'3 16'03	Admitted Died Invalided	...	...	...	...	123	...	...	1	...	6	10	29	4	...	1	...	19	16	390	...
47	10th Bengal Lancers, Jhelum, November, 1893, from Umballa.	615	489	11'2	1	578'7 11'38 4'88	Admitted Died Invalided	...	...	...	...	88	18	...	1	...	2	12	9	2	...	1	11	6	283	...	
48	11th Bengal Lancers, Nowshera, September, 1895, from Chitral.	623	502	10'8	4	639'4 8'03 9'63	Admitted Died Invalided	...	...	...	...	65	5	...	1	...	5	15	5	3	...	1	...	7	3	321	...
49	12th Bengal Cavalry, Sialkot, February, 1892, from Mooltan.	624	493	8'3	5	466'5 3'21 4'81	Admitted Died Invalided	...	...	...	...	25	1	...	...	...	2	14	14	...	...	...	...	4	230	...	
50	13th Bengal Lancers, Peshawar, December, 1893, from Nowshera.	611	511	9'7	7	469'7 3'27 3'27	Admitted Died Invalided	...	...	1	1	54	4	...	1	...	2	7	8	...	...	...	...	9	1	240	...
51	16th Bengal Cavalry, Mooltan, December, 1895, from Loralai.	612	513	15'6	33	861'6 21'24 6'54	Admitted Died Invalided	...	...	1	...	96	42	...	...	...	22	17	38	2	...	2	1	8	10	442	...
52	17th Bengal Cavalry, Umballa, January, 1894, from Loralai.	613	520	8'4	1	396'2 13'05 4'89	Admitted Died Invalided	...	...	...	...	53	13	...	...	1	12	6	9	...	...	...	...	11	7	206	...
53	18th Bengal Lancers, Ferozepore, January, 1892, from Loralai.	623	510	5'8	3	349'0 8'03 ...	Admitted Died Invalided	...	...	...	...	35	15	...	...	...	4	10	7	3	...	...	...	1	5	178	...
54	19th Bengal Lancers, Meean Meer, October, 1893, from Jhelum.	608	515	10'4	17	392'2 16'45 3'29	Admitted Died Invalided	...	...	1	...	24	35	...	1	...	5	23	7	...	...	...	...	7	4	202	...
55	1st Punjab Cavalry, Edwardesabad, February, 1896, from Dera Ismail Khan.	620	517	13'4	6	744'7 9'68 12'90	Admitted Died Invalided	...	...	...	...	146	21	...	1	...	13	16	15	4	...	...	2	5	12	385	...
56	2nd Punjab Cavalry, Dera Ismail Khan, January, 1896, from Dera Ghazi Khan.	624	493	12'7	8	854'0 11'22 11'22	Admitted Died Invalided	21	...	...	...	161	7	3	...	...	7	9	26	6	...	...	...	2	8	421	...
57	3rd Punjab Cavalry, Kohat, February, 1896, from Edwardesabad.	620	490	13'3	12	869'4 19'35 4'84	Admitted Died Invalided	...	1	2	...	130	14	...	...	...	9	34	17	2	...	1	4	1	3	426	...
58	5th Punjab Cavalry, Dera Ghazi Khan, December, 1895, from Rajanpur.	614	473	8'9	12	547'6 8'14 19'54	Admitted Died Invalided	6	...	...	...	54	2	...	...	1	3	11	9	2	...	...	2	6	4	259	...
59	14th Sikh Infantry, Ferozepore, January, 1894, from Peshawar.	876	763	23'3	5	684'1 13'70 3'42	Admitted Died Invalided	...	...	1	...	136	2	...	1	2	2	8	44	8	...	1	3	27	15	522	...
60	15th Sikh Infantry, Ferozepore, April, 1896, from Malakand.	689	489	10'3	17	562'4 11'61 7'26	Admitted Died Invalided	...	...	2	...	39	8	...	...	2	3	12	10	...	...	...	2	15	3	275	...
61	19th Punjab Infantry, Mooltan, December, 1893, from Fort Sandeman.	897	851	18'8	42	705'1 16'72 ...	Admitted Died Invalided	...	...	1	...	222	9	...	...	1	12	31	72	4	...	1	5	4	25	600	...

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.	
52	20th Punjab Infantry, Peshawar, February, 1896, from Waziristan.	895	747	16.3	27	554.2 17.88 26.82	Admitted Died Invalided	2	...	...	...	117	7	...	...	2	28	32	14	14	...	...	4	20	15	414	...
								1	1	3	1	6	10	6
53	21st Punjab Infantry, Sialkot, November, 1895, from Kurram.	885	750	10.4	8	298.7 9.04 13.56	Admitted Died Invalided	...	...	3	...	32	13	1	...	1	14	11	3	2	...	1	1	10	7	224	...
								1	2	...	2	...	2	2	2	7	12	1
54	22nd Punjab Infantry, Fort Lockhart, December, 1895, from Dera Ismail Khan.	893	796	19.8	16	786.4 6.72 3.36	Admitted Died Invalided	...	...	...	...	182	14	...	...	1	9	25	63	18	...	1	5	7	13	626	...
								1	3	1	6	...	3
55	23rd Pioneers, Umballa, October, 1895, from Chitral.	901	748	15.0	12	494.7 3.33 2.22	Admitted Died Invalided	...	...	2	...	106	58	...	...	...	11	3	8	...	...	...	...	18	2	370	...
								1	1	1	2	...
56	Depôt, 24th Punjab Infantry, Mooltan, May, 1896, from Delhi.	346	340	9.3	17	647.1 37.57 ...	Admitted Died Invalided	...	...	4	...	48	9	...	...	...	17	12	3	1	...	...	...	6	13	220	...
								1	7	1	11	...	2
57	25th Punjab Infantry, Meean Meer, June, 1896, from Chitral.	578	385	6.0	11	368.8 15.57 20.76	Admitted Died Invalided	...	...	1	...	30	7	2	...	...	8	4	5	5	...	...	...	8	7	142	...
								1	11	2	7
58	26th Punjab Infantry, Jhelum, August, 1895, from Mardan.	609	536	13.1	35	459.0 29.56 1.64	Admitted Died Invalided	...	...	...	...	48	24	...	...	5	7	19	10	3	...	...	8	14	2	246	...
								1	6	3	4	1	15	...	3
59	27th Punjab Infantry, Rawalpindi, October, 1895, from Kohat.	897	732	13.3	21	513.7 18.95 5.57	Admitted Died Invalided	...	1	1	...	97	7	...	1	4	18	27	16	2	...	2	...	13	17	376	...	
								1	2	...	12	...	5
60	Depôt 28th Punjab Infantry, Ferozepore, December, 1894, from Peshawar.	415	380	7.8	16	452.6 21.69 4.82	Admitted Died Invalided	...	...	...	...	28	3	...	2	2	6	20	3	...	...	...	2	5	11	172	...
								2	1	2	6	...	3
61	30th Punjab Infantry, Peshawar, November, 1895, from Chitral.	907	714	8.4	8	313.7 7.72 1.10	Admitted Died Invalided	...	...	1	...	84	1	...	...	2	8	2	3	...	...	1	1	13	1	224	...
								1	4	...	3
62	Depôt, 31st Punjab Infantry, Peshawar, April, 1893, from Meerut.	170	154	3.4	7	461.0 23.53 64.71	Admitted Died Invalided	...	...	...	...	23	...	...	...	2	1	1	9	2	...	...	...	3	1	71	...
								6	11	...	3
63	32nd Pioneers Meean Meer, October, 1895, from Gilgit.	891	722	15.1	14	455.7 14.59 29.18	Admitted Died Invalided	...	...	1	...	59	14	...	...	...	16	22	13	...	...	2	...	21	3	329	...
								1	1	2	19	...	7	...	6
64	33rd Punjab Infantry, Rawalpindi, March, 1895, from Waziristan.	867	759	15.9	31	567.9 19.61 8.07	Admitted Died Invalided	...	2	2	...	140	4	...	...	7	14	12	35	8	...	...	2	7	14	431	...
								2	11	...	6
65	34th Pioneers, Jhelum, May, 1896, from Malakand.	610	417	13.4	10	738.6 16.39 9.84	Admitted Died Invalided	...	...	...	...	45	26	...	...	3	...	10	6	4	...	...	4	16	5	308	...
								1	1	...	1	1	4	...	6
66	35th Sikh Infantry, Jullundur, May, 1895, from Nowgong.	503	480	8.1	13	389.6 9.94 ...	Admitted Died Invalided	...	...	4	...	46	1	...	2	1	7	8	4	...	...	...	6	5	6	187	...
								1	1	1	4	...	1
67	36th Sikh Infantry, Peshawar, April, 1895, from Edwardesabad.	880	763	13.3	20	428.6 15.91 3.41	Admitted Died Invalided	...	...	2	...	138	35	...	1	2	23	6	17	2	...	...	...	9	1	327	...
								2	3	1	12	...	2

NATIVE TROOPS, 1896.

TABLE XXXIX—continued. STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
78	37th Dogras, Sialkot, December, 1895, from Nowshera.	909	717	19'5	17	729'4 30'80 7'70	Admitted Died Invalided	...	...	1	...	154	16	...	2	8	45	15	19	7	...	1	1	9	4	523	...
79	38th Dogras, Nowshera, December, 1895, from Waziristan.	887	735	15'2	38	631'3 52'99 7'89	Admitted Died Invalided	...	...	1	...	167	23	1	1	4	39	48	2	4	...	1	...	4	16	464	...
80	Depôt 45th Sikhs, Jullundur, June, 1896, from Meean Meer.	356	342	11'1	19	771'9 22'47 5'62	Admitted Died Invalided	...	...	...	...	39	1	...	...	3	12	4	10	1	...	...	...	9	9	264	...
81	1st Punjab Infantry, Abbottabad, May, 1893, from Kurram.	900	766	22'9	28	1035'2 15'56 ...	Admitted Died Invalided	16	...	...	...	357	8	5	...	1	18	27	40	9	...	2	3	6	65	793	...
82	2nd Punjab Infantry, Edwardesabad, March, 1896, from Tochi Valley.	896	757	30'7	42	1455'7 20'09 5'58	Admitted Died Invalided	15	...	1	...	368	36	14	1	4	33	70	38	12	...	...	2	13	32	1,102	...
83	4th Punjab Infantry, Wana, April, 1896, from Dera Ismail Khan.	928	772	33'2	20	1610'1 19'40 5'39	Admitted Died Invalided	20	...	...	...	758	18	50	2	1	35	44	53	13	...	...	2	10	15	1,243	...
84	5th Punjab Infantry, Kohat, December, 1895, from Samana.	906	752	20'5	37	871'0 20'97 5'52	Admitted Died Invalided	...	1	...	...	271	50	...	...	9	21	52	31	3	...	1	5	6	6	655	...
85	6th Punjab Infantry, Miran Shah (Tochi Column), October, 1895, from Kohat.	889	797	29'0	30	1001'3 12'37 10'12	Admitted Died Invalided	18	...	...	...	181	5	3	1	3	14	57	86	37	...	...	5	5	18	798	...
86	1st Sikh Infantry, Miran Shah (Tochi Column), March, 1896, from Edwardesabad.	891	832	25'8	33	1082'9 14'59 6'73	Admitted Died Invalided	55	...	3	...	362	6	4	1	...	33	14	110	17	...	...	8	3	19	901	...
87	2nd Sikh Infantry, Dera Ghazi Khan, November, 1893, from Edwardesabad.	890	757	17'1	35	685'6 21'35 5'62	Admitted Died Invalided	9	...	...	...	156	20	2	...	7	29	13	35	3	...	...	3	17	3	519	...
88	3rd Sikh Infantry, Dera Ismail Khan, November, 1892, from Kohat.	888	710	21'2	29	1038'0 40'54 12'39	Admitted Died Invalided	9	...	...	...	211	17	6	...	1	62	28	18	6	1	...	16	9	22	737	...
89	4th Sikh Infantry, Kohat, May, 1894, from Mastoon.	882	737	20'3	40	853'5 41'95 9'07	Admitted Died Invalided	1	1	...	...	269	12	...	1	1	34	8	36	12	...	...	...	21	11	629	...
90	Corps of Guides, Mardan (Local).	1261	979	24'2	21	768'1 19'83 12'69	Admitted Died Invalided	...	...	1	...	242	8	...	...	6	26	61	36	29	...	3	4	4	9	752	...
91	1st Gurkha Rifles, Dharmasala (Local).	899	808	32'2	21	979'0 4'45 3'34	Admitted Died Invalided	17	...	...	...	288	8	...	...	3	11	4	5	6	...	1	...	106	14	791	...
92	2nd Gurkha Rifles, Dharmasala (Local).	895	758	35'7	15	955'1 12'29 3'35	Admitted Died Invalided	118	...	...	...	276	8	...	...	5	6	5	13	4	...	1	...	86	10	724	...
93	1st Gurkha Rifles, Bakloh (Local).	897	814	24'0	3	841'5 11'15 4'46	Admitted Died Invalided	57	...	1	...	187	32	...	...	5	6	15	13	9	...	1	1	71	4	685	...
94	2nd Gurkha Rifles, Bakloh (Local).	891	745	32'7	7	865'8 11'22 12'35	Admitted Died Invalided	12	...	1	1	135	40	...	...	8	19	35	4	1	...	5	6	96	9	645	...

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.	
95	1-5th Gurkha Rifles, Abbottabad (Local).	909	798	64.4	4	1399.7 15.40 20.90	Admitted Died Invalided	...	...	...	...	540 1	23	...	1	7 4 1	20 1	8 1	40 2	13	...	1	1	40	14	1,117 10 19	...	4
96	Depôt, 2-5th Gurkha Rifles, Abbottabad (Local).	415	411	20.7	11	1180.0 21.69 9.64	Admitted Died Invalided	6	...	...	...	242	5 1	...	...	2 2	24	60 1	4	3	...	...	...	18	3	485 8 4	...	1
97	No. 1 Kohat Mountain Battery, Miran Shah (Tochi Column), October, 1895, from Chitral.	254	208	10.3	8	1341.3 15.75 7.87	Admitted Died Invalided	...	...	...	...	65	...	...	...	...	3	18	17	6	...	...	3	...	5	279 ...	...	4
98	No. 2 Derajat Mountain Battery, Kohat, October, 1895, from Chitral.	246	207	8.1	6	1468.6 40.65 4.07	Admitted Died Invalided	...	...	...	...	108	15 1	...	...	...	6 4	21	14	5	...	...	...	6	3	304 7 1	...	3
99	No. 3 Peshawar Mountain Battery, Wana, January, 1896, from Dera Ismail Khan.	262	219	10.2	3	2707.8 ... 19.08	Admitted Died Invalided	7	...	...	...	140	14	12	...	3	11	15	7	3	...	...	2	2	3	374...	...	...
100	No. 4 Hazara Mountain Battery, Abbottabad, November, 1895, from Chitral.	160	119	3.9	5	831.9 18.75 50.00	Admitted Died Invalided	...	...	...	...	20	2	...	...	1 1	3 1	4 1	1	...	...	...	...	...	3	99 2 8	...	1
101	Punjab Garrison Battery, Kohat (Local).	70	56	1.0	4	571.4 14.29 28.57	Admitted Died Invalided	...	...	...	...	12	1	...	...	1	1	2	...	1	...	...	...	...	...	32 ...	...	1
102	No. 6 Bombay Mountain Battery, Dera Ismail Khan, April, 1896, from Loralai.	221	174	5.5	8	1017.2 36.20 9.05	Admitted Died Invalided	...	...	...	...	46	6	1	1	...	7 4 1	15	...	10	...	...	...	...	4	177 6 2	...	...
103	Drivers, No. 1 Mountain Battery, Royal Artillery, Jutogh, March, 1892, from Baragully.	149	128	2.0	3	500.0 13.42 20.13	Admitted Died Invalided	...	...	...	...	15	2 1	...	...	...	4 1	...	3	1	...	...	...	2	...	64 2 3	...	...
104	Drivers, No. 3 Mountain Battery, Royal Artillery, Jutogh, March, 1896, from Rawalpindi.	147	129	4.1	4	751.9 ... 20.41	Admitted Died Invalided	...	...	...	...	25	2	...	...	...	1	...	2	1	...	...	...	7	...	97...	...	...
105	Drivers, No. 5 Mountain Battery, Royal Artillery, Baragully, March, 1896, from Quetta.	147	131	2.2	...	435.1 13.61 6.80	Admitted Died Invalided	...	...	...	...	8	...	...	...	...	...	5	...	...	...	1	6	1	57 2 1	...	...
106	Drivers, No. 7 Mountain Battery, Royal Artillery, Khyragully, April, 1896, from Rawalpindi.	148	135	4.0	7	563.0 ... 13.51	Admitted Died Invalided	...	...	...	...	8	...	...	...	...	1	5	8	...	...	...	...	12	...	76...	...	...
107	Drivers, No. 8 Mountain Battery, Royal Artillery, Kalabagh, April, 1896, from Rawalpindi.	148	129	4.0	4	728.7 6.76 54.05	Admitted Died Invalided	...	...	...	...	13	...	...	...	1	...	3	...	3	...	...	...	8	2	94 ...	...	1

TABLE XXXIX.—continued.

STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
108	Governor's Body Guard, Madras (Local).	121	116	2'8	6	612'1 ... 8'26	Admitted Died Invalided	...	...	...	...	10	...	...	5	...	1	1	2	3	...	...	6	...	...	71	...
109	1st Madras Lancers, Bellary, January, 1895, from Secunderabad.	622	553	12'7	24	481'0 1'61 14'47	Admitted Died Invalided	8	...	...	...	47	1	22	...	...	3	5	4	...	...	2	...	12	16	266	...
110	2nd Madras Lancers, Bangalore, February, 1892, from Secunderabad.	615	547	21'4	24	877'5 1'63 22'76	Admitted Died Invalided	...	...	...	...	98	1	13	4	1	5	15	17	...	...	...	...	32	10	480	...
111	3rd Madras Lancers, Secunderabad, November, 1894, from Bellary.	613	547	14'4	22	722'1 1'63 21'21	Admitted Died Invalided	...	...	1	...	77	...	...	3	2	5	21	14	1	...	3	1	21	14	395	...
112	Madras Sappers and Miners, Bangalore (Local).	1,468	1,171	31'6	49	962'4 4'09 15'67	Admitted Died Invalided	36	1	...	...	360	11	32	2	3	6	68	30	9	...	3	...	72	18	1,127	...
113	1st Madras Pioneers, Bangalore, May, 1896, from Myingyan.	794	747	20'2	14	455'2 13'85 7'56	Admitted Died Invalided	...	4	...	...	88	2	9	...	...	4	18	10	7	...	...	...	48	8	340	...
114	3rd Madras Infantry, Myingyan, October, 1893, from Trichinopoly.	577	577	20'1	12	603'1 5'20 5'20	Admitted Died Invalided	3	...	1	...	87	...	21	...	1	...	7	29	1	...	...	...	23	10	348	...
115	Wing, 3rd Madras Infantry, Shwebo, November, 1895, from Myingyan.	211	196	9'5	9	780'6 4'74 ...	Admitted Died Invalided	...	...	...	...	56	...	...	1	...	...	6	9	2	...	1	1	10	2	153	...
116	4th Madras Pioneers, Trichinopoly, December, 1894, from Bangalore	825	796	17'5	12	565'3 6'06 4'85	Admitted Died Invalided	...	6	...	...	116	...	9	1	1	...	11	17	...	...	...	...	69	1	450	...
117	5th Madras Infantry, Secunderabad, October, 1893, from Rangoon.	821	797	20'9	8	577'2 9'74 6'09	Admitted Died Invalided	...	...	...	...	150	9	7	...	2	14	15	35	5	...	1	...	19	2	460	...
118	Head Quarters, 6th Madras Infantry, Berhampur, January, 1895, from Madras.	433	406	8'2	9	354'7 18'48 13'86	Admitted Died Invalided	...	3	...	...	24	6	...	1	...	3	6	6	2	1	1	...	17	11	144	...
119	9th Madras Infantry, Bellary, November, 1895, from Thayetmyo.	800	739	23'7	38	602'2 13'75 23'75	Admitted Died Invalided	1	1	6	...	168	1	...	2	1	7	9	29	12	...	1	...	50	26	445	...
120	1st Burma Rifles (10th Madras Infantry), Keng-lung, February, 1896, from Maymyo.	794	734	109'3	32	2211'2 35'26 1'26	Admitted Died Invalided	...	...	...	...	1,163	9	...	...	...	3	21	30	26	...	1	...	31	83	1,623	...
121	11th Madras Infantry, Secunderabad, March, 1895, from Vizianagram.	814	764	17'1	40	579'8 9'83 2'46	Admitted Died Invalided	...	1	5	...	163	...	...	5	...	1	4	10	5	...	2	...	36	11	443	...

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
122	2nd Burma Battalion (12th Madras Infantry), Mandalay, February, 1894, from Haka.	838	735	16'9	8	507'5 9'55 1'19	Admitted Died Invalided	...	...	...	...	148	1	...	...	2	1	8	3	7	...	...	...	45	5	373	...
123	13th Madras Infantry, Thayetmyo, November, 1895, from Cannanore.	809	723	23'8	22	889'3 22'25 14'83	Admitted Died Invalided	...	...	...	...	217	3	...	3	...	4	23	68	31	...	3	...	32	29	643	...
124	14th Madras Infantry, Madras, November, 1895, from Moulmein.	804	764	17'3	30	450'3 9'95 8'71	Admitted Died Invalided	...	...	...	...	50	2	...	4	2	4	16	12	3	...	2	...	46	16	344	...
125	15th Madras Infantry, Madras, January, 1895, from Secunderabad.	819	805	14'2	11	411'2 7'33 14'65	Admitted Died Invalided	...	...	...	...	76	12	...	8	...	5	16	22	1	...	2	...	20	8	331	...
126	16th Madras Infantry, Rangoon, November, 1895, from Bellary.	825	795	15'2	20	572'3 10'91 2'42	Admitted Died Invalided	...	...	...	...	50	2	5	4	3	3	15	66	11	...	1	...	15	48	455	...
127	17th Madras Infantry, Rangoon, November, 1893, from Quilon.	836	806	13'8	15	465'3 16'75 14'35	Admitted Died Invalided	...	...	...	...	57	2	6	1	1	2	8	50	2	1	...	...	37	14	375	...
128	19th Madras Infantry, Secunderabad, January, 1895, from Cuttack and Berhampur.	817	760	29'5	55	823'7 4'90 18'36	Admitted Died Invalided	1	3	3	...	295	4	...	3	2	6	15	6	2	...	1	1	19	21	626	...
129	20th Madras Infantry, Vizianagram, February, 1896, from Secunderabad.	819	818	26'4	22	595'4 10'99 ...	Admitted Died Invalided	...	1	2	...	133	...	...	1	...	7	2	6	2	...	...	...	44	3	487	...
130	21st Madras Pioneers, Bangalore, November, 1894, from Myingyan.	794	748	30'2	46	648'4 6'30 34'01	Admitted Died Invalided	...	2	2	1	87	1	...	2	1	2	9	51	10	...	1	...	35	50	485	...
131	22nd Madras Infantry, Secunderabad, April, 1893, from Fort Stedman.	828	749	14'6	11	392'5 13'29 3'62	Admitted Died Invalided	...	2	1	...	87	4	...	1	1	13	5	6	1	...	...	...	21	6	294	...
132	23rd Madras Infantry, Trichinopoly, January, 1894, from Burma and Madras.	828	812	14'3	19	472'9 7'25 6'04	Admitted Died Invalided	...	1	...	...	50	1	41	4	2	...	14	17	1	...	...	...	42	5	384	...
133	24th Madras Infantry, Bangalore, January, 1893, from Rangoon.	812	772	18'0	22	480'6 11'08 12'32	Admitted Died Invalided	...	...	11	...	7	4	67	...	...	3	10	9	1	...	...	...	40	6	371	...
134	25th Madras Infantry, Cannanore, April, 1895, from Madras.	740	688	21'0	12	463'7 14'86 18'92	Admitted Died Invalided	...	...	...	...	54	...	5	...	1	4	6	12	2	...	2	...	97	13	319	...
135	26th Madras Infantry, Belgam, December, 1895, from Rangoon.	816	774	21'5	2	596'9 6'13 33'09	Admitted Died Invalided	...	...	16	...	78	4	...	6	...	3	21	5	9	...	1	...	75	19	462	...

NATIVE TROOPS, 1896.

TABLE XXXIX—continued. STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
136	27th Madras Infantry, Moulmein, November, 1895, from Madras and St. Thomas' Mount.	821	792	17'1	11	428'0 8'53 8'53	Admitted Died Invalided	...	...	...	...	77 2	2	...	...	...	...	6 1	46	1	...	...	...	17 2	15	339 3 7	...
137	28th Madras Infantry, Quilon, November, 1893, from Myingyan.	820	747	10'9	13	358'8 4'88 ...	Admitted Died Invalided	...	...	...	...	5	...	35	...	4 1 1	2	13	6	1	...	...	...	34 1 1	11 ...	268 4 17	...
138	7th Burma Battalion (29th Madras Infantry), Meiktila, raised in October, 1893.	815	709	13'1	13	361'1 2'45 3'68	Admitted Died Invalided	...	...	...	...	49	2 1	...	...	...	2	24	13	...	...	1	...	29	8	256 1 3	...
139	5th Burma Battalion (30th Madras Infantry), Bhāmo, November, 1894, from Mandalay.	807	686	23'4	26	1005'8 3'72 7'43	Admitted Died Invalided	...	...	...	...	396 1	2	...	4	1 1	1	26	42	4	...	...	1	2	18	690 2 6	...
140	6th Burma Battalion (31st Madras Infantry), Haka, January, 1894, from Shwebo.	524	434	11'7	15	942'4 9'54 19'08	Admitted Died Invalided	69	...	...	...	124	4 1	2	...	1	...	29	11	...	...	1	...	6	12	409 2 10	...
141	Wing, 6th Burma Battalion (31st Madras Infantry), Falam, May, 1893, from Shwebo.	299	252	6'4	12	412'7 10'03 3'34	Admitted Died Invalided	...	...	...	...	38	...	...	1	1	...	6	9	6	...	...	...	3	7	104 2 1	...
142	4th Burma Battalion (32nd Madras Infantry), Fort Stedman, March, 1893, from Meiktila.	840	721	33'8	23	1239'9 30'95 4'76	Admitted Died Invalided	16	...	...	...	474 1	5 2	2	1	...	7	32	30	12	...	1	...	21	96	894 11 4	...
143	3rd Burma Battalion (33rd Madras Infantry), Mandalay, November, 1894, from Bhāmo.	837	732	18'6	23	565'6 17'92 3'58	Admitted Died Invalided	...	...	...	...	148	1	3	...	4 2	6 4	14	7	1	...	...	...	32	8	414 7 3	...
144	No. 7 Bengal Mountain Battery, Bhāmo, November, 1895, from Dehra Dun.	217	196	12'0	6	2168'4 18'43 13'82	Admitted Died Invalided	...	...	...	...	257 2 1	6 1	...	3	1 1	2	20	20	2	...	1	...	...	10	425 4 3	...
145	Drivers, No. 6 Mountain Battery, Royal Artillery, Mandalay, January, 1895, from Darjeeling.	146	121	3'0	4	1057'9 13'70 ...	Admitted Died Invalided	...	2	...	...	58	...	...	...	...	...	2	5	3	...	...	...	4	1	128...	...
146	Governor's Body Guard, Poona (Local).	66	62	1'1	1	822'6 ...	Admitted Died Invalided	...	...	...	...	18	...	...	...	...	...	...	5	1	...	...	...	...	1	51...	...
147	1st Bombay Lancers, Neemuch, November, 1891, from Deesa.	356	338	9'5	6	766'3 16'85 2'81	Admitted Died Invalided	1	...	3	...	99 1	2 1	10	1	1	2	3	10	5	...	...	4	1	11	259 5 1	...
148	2nd Bombay Lancers, Poona, February, 1892, from Neemuch.	601	567	19'6	6	1017'6 8'32 3'33	Admitted Died Invalided	1	...	1	...	155	44	2	...	1	10	16	25	2	...	...	...	11	...	577 4 2	...

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
149	3rd Bombay Cavalry, Deesa, March, 1892, from Poona.	616	543	8.0	10	607.7 1.62 32.47	Admitted Died Invalided	...	...	...	...	92	5	12	...	...	...	8	9	...	...	...	5	10	9	330	...
150	4th Bombay Cavalry, Sirur (Local).	611	533	18.0	16	881.8 11.46 14.73	Admitted Died Invalided	...	4	...	...	110	32	...	2	...	2	13	34	6	1	1	...	26	5	470	...
151	5th Bombay Cavalry, Quetta, March, 1896, from Jacobabad.	601	544	24.5	37	1569.9 11.65 4.99	Admitted Died Invalided	27	...	...	...	376	9	...	...	1	9	16	24	22	...	...	1	25	7	854	...
152	6th Bombay Cavalry, Jacobabad, December, 1895, from Fort Sandeman.	612	525	17.1	7	931.4 6.54 22.88	Admitted Died Invalided	...	...	...	...	242	...	...	...	...	5	19	7	3	...	...	...	15	1	489	...
153	7th Bombay Lancers, Fort Sandeman, November, 1895, from Quetta.	599	468	16.6	30	1175.2 13.36 1.67	Admitted Died Invalided	...	...	...	...	283	8	...	...	1	7	10	27	4	...	1	9	8	21	550	...
154	15th Bengal Lancers, Loralai, November, 1895, from Mooltan.	620	494	18.7	28	1332.0 11.29 27.42	Admitted Died Invalided	...	...	...	...	379	2	1	...	...	6	59	13	26	...	1	2	8	11	658	...
155	Aden Troop, Aden (Local).	99	88	3.0	1	1886.4 ... 20.20	Admitted Died Invalided	...	...	...	...	100	1	...	...	...	...	13	9	1	...	...	2	1	1	166	...
156	Bombay Sappers and Miners, Kirkee (Local)	808	724	22.4	17	1287.3 6.19 25.99	Admitted Died Invalided	...	...	...	...	505	5	10	...	...	13	20	41	6	...	3	3	35	12	932	...
157	1st Bombay Infantry, Shalabagh, April, 1896, from Quetta.	798	748	15.2	7	637.7 11.28 21.30	Admitted Died Invalided	1	...	2	...	181	9	17	...	...	3	27	36	12	...	2	3	28	6	477	...
158	2nd Bombay Infantry, Poona, April, 1894, from Peshin.	791	712	15.8	7	560.4 11.38 12.64	Admitted Died Invalided	...	...	...	...	103	27	13	...	2	11	20	39	4	...	...	...	29	6	399	...
159	3rd Bombay Infantry, Mhow, March, 1893, from Kirkee.	753	704	17.8	4	687.5 3.98 2.66	Admitted Died Invalided	3	...	3	...	195	4	2	...	1	7	11	10	3	...	1	4	43	2	484	...
160	4th Bombay Infantry, Poona, April, 1893, from Quetta.	796	730	18.2	7	1000.0 8.79 21.36	Admitted Died Invalided	...	...	1	...	368	7	1	1	3	9	13	19	2	...	3	...	28	8	730	...
161	5th Bombay Infantry, Ahmedabad, March, 1896, from Pestin.	778	664	18.6	14	832.8 17.99 3.86	Admitted Died Invalided	...	1	...	1	234	34	31	2	10	5	11	12	5	...	...	2	35	7	553	...
162	8th Bombay Infantry, Baroda, March, 1895, from Ahmednagar.	808	727	19.2	4	740.0 8.66 30.94	Admitted Died Invalided	...	...	2	2	198	7	35	...	...	7	24	21	5	...	...	2	20	4	538	...
163	9th Bombay Infantry, Amednagar, April, 1895, from Quetta.	799	731	14.1	5	682.6 8.76 6.26	Admitted Died Invalided	...	2	1	...	135	7	84	2	...	5	10	18	6	...	...	1	17	6	499	...
164	10th Bombay Infantry, Satara, February, 1893, from Poona.	806	689	14.8	9	641.5 12.41 6.20	Admitted Died Invalided	...	1	...	...	235	3	...	2	...	3	11	12	2	...	...	3	30	3	442	...
165	13th Bombay Infantry, Aden, April, 1894, from Bombay.	787	776	26.6	23	1073.5 21.60 21.60	Admitted Died Invalided	...	...	...	...	394	10	2	3	...	4	30	77	20	...	...	16	14	16	833	...

NATIVE TROOPS, 1896.

TABLE XXXIX—continued. STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
166	14th Bombay Infantry, Deesa, January, 1892, from Bhuj.	807	695	9'1	14	384'2 16'11 27'26	Admitted Died Invalided	...	...	1	...	67	6	3	...	4	11	16	16	2	...	...	2	24	5	267	...
167	16th Bombay Infantry, Quetta, April, 1896, from Ahmedabad.	786	707	20'2	17	1306'9 2'54 2'54	Admitted Died Invalided	35	...	3	...	356	8	2	...	...	18	64	14	31	...	...	2	58	16	924	...
168	17th Bombay Infantry, Bhuj, December, 1891, from Aden.	788	701	15'3	7	486'4 3'81 2'54	Admitted Died Invalided	21	...	...	...	19	3	72	...	2	11	9	12	3	...	2	13	34	1	341	...
169	19th Bombay Infantry, Poona, February, 1896, from Mhow.	760	692	22'8	8	1049'1 7'89 18'42	Admitted Died Invalided	21	...	2	...	358	3	28	3	1	17	15	28	3	...	...	2	30	7	726	...
170	20th Bombay Infantry, Mhow, January, 1896, from Nasirabad	792	719	24'2	33	834'5 12'63 20'20	Admitted Died Invalided	58	...	2	...	118	5	8	3	2	21	33	39	13	...	3	2	55	9	600	...
171	21st Bombay Infantry, Bombay (Local).	805	732	19'1	14	732'2 16'15 24'84	Admitted Died Invalided	...	...	...	...	175	24	3	1	...	2	16	58	7	...	4	1	32	6	536	...
172	22nd Bombay Infantry, Bombay, March, 1894, from Ahmedabad.	788	708	21'5	24	765'5 17'77 43'15	Admitted Died Invalided	...	...	4	...	121	51	4	...	2	3	24	43	25	1	2	1	35	10	542	...
173	23rd Bombay Infantry, Nasirabad, February, 1896, from Rajkot.	600	561	12'6	3	593'6 15'00 11'67	Admitted Died Invalided	...	...	1	...	98	5	...	1	...	16	14	20	...	...	...	...	30	5	333	...
174	Wing, 23rd Bombay Infantry, Neemuch, February, 1896, from Rajkot.	187	160	8'4	5	1368'8 16'04 53'48	Admitted Died Invalided	...	...	1	...	83	8	...	3	...	7	4	2	3	...	...	...	6	6	219	...
175	24th Bombay Infantry, Quetta, July, 1896, from Mombasa Field Force.	683	600	13'6	14	1026'7 14'64 ...	Admitted Died Invalided	240	...	1	...	174	1	...	...	...	2	6	9	2	...	...	8	24	9	616	...
176	25th Bombay Infantry, Quetta, March, 1896, from Poona.	802	722	26'8	9	1362'9 6'23 14'96	Admitted Died Invalided	2	...	1	...	429	47	...	...	...	10	37	128	19	...	2	1	43	17	984	...
177	26th Bombay Infantry, Chaman, March, 1896, from Quetta.	899	745	17'8	12	632'2 12'24 2'22	Admitted Died Invalided	1	...	2	...	145	26	...	...	1	4	8	24	8	...	...	5	90	5	471	...
178	1st Baluch Battalion (27th Bombay Infantry), Hyderabad, March, 1895, from Loralai.	784	702	18'0	8	645'3 16'58 3'83	Admitted Died Invalided	...	...	...	...	137	6	4	...	1	5	19	34	3	1	4	1	45	12	453	...
179	28th Bombay Infantry, Kirkee, April, 1894, from Manipur.	799	710	15'3	7	856'3 7'51 22'53	Admitted Died Invalided	...	1	...	...	292	6	...	1	4	9	12	20	4	...	...	2	24	3	608	...
180	2nd Baluch Battalion (29th Bombay Infantry), Loralai, February, 1895, from Hyderabad.	808	695	21'3	20	969'8 11'14 7'43	Admitted Died Invalided	...	...	...	...	354	22	...	...	15	79	19	3	...	...	25	5	11	674	...	
181	3rd Baluch Battalion (30th Bombay Infantry), Kurra- chee, March, 1893, from Loralai.	800	713	20'9	21	1136'0 6'25 1'25	Admitted Died Invalided	...	...	...	...	454	11	1	...	1	4	20	23	5	...	1	3	31	8	810	...

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
182	2nd Madras Infantry, Raipur, March, 1896, from Belgam.	567	553	10·6	8	500·9 10·58 7·05	Admitted Died Invalided	...	2	1	...	85	5	23	1	1	3	2	10	2	...	...	...	74	...	277	...
183	Wing, 2nd Madras Infantry, Sambalpur, March, 1896, from Belgam,	237	222	3·8	8	707·2 4·22 ...	Admitted Died Invalided	...	...	1	...	71	1	3	...	...	...	...	11	1	...	...	...	9	4	157	...
184	7th Madras Infantry, Kamp- tee, February, 1896, from Belgam.	825	769	20·8	14	793·2 19·39 16·97	Admitted Died Invalided	1	9	2	...	178	15	114	1	2	2	4	5	10	1	...	...	59	5	610	...
185	40th Pathans, Fort Sande- man, March, 1895, from Quetta.	876	757	22·2	20	1244·4 9·13 4·57	Admitted Died Invalided	...	...	...	...	433	5	...	...	1	17	30	55	37	...	...	47	1	9	942	...
186	Drivers, No. 2 Mountain Bat- tery, Royal Ar- tillery, Quetta, February, 1896, from Jutogh.	149	139	2·3	2	539·6	Admitted Died Invalided	3	...	...	...	25	2	3	...	...	1	1	9	1	...	...	...	1	...	75	...
187	1st Central India Horse, Agar, Decem- ber, 1894, from Goona.	621	490	7·1	3	402·0 9·66 4·83	Admitted Died Invalided	...	2	1	...	69	8	4	...	...	...	3	9	2	...	...	1	8	4	197	...
188	2nd Central India Horse, Goona, De- cember, 1894, from Agar.	621	527	11·2	4	675·5 17·71 6·44	Admitted Died Invalided	18	3	...	...	141	1	3	...	...	9	3	15	3	...	1	1	7	18	356	...
189	Malwa Bhil Corps, Sirdar- pore (Local).	575	546	10·8	14	752·7 10·43 40·00	Admitted Died Invalided	5	8	5	...	116	2	4	...	3	17	29	7	4	...	1	...	4	5	411	...
190	Meywar Bhil Corps, Kher- wara (Local).	709	607	19·9	11	644·2 15·51 4·23	Admitted Died Invalided	18	...	...	...	76	1	...	...	2	30	25	4	1	...	1	...	3	4	391	...
191	Bhopal Batta- lion, Sehore (Local).	920	795	16·1	11	854·1 10·87 11·96	Admitted Died Invalided	...	6	...	...	334	12	88	...	...	8	6	21	5	...	...	2	28	13	679	...
192	Merwara Batta- lion, Ajmere (Local).	710	632	12·8	79	564·9 12·68 7·04	Admitted Died Invalided	...	...	1	...	96	13	...	1	4	23	25	8	4	...	1	...	10	...	357	...
193	Deoli Irregular Force, Deoli (Local).	838	760	10·4	10	447·4 3·58 9·55	Admitted Died Invalided	...	...	...	...	76	18	4	...	...	7	6	16	...	...	2	...	30	8	340	...
194	Erinpura Irregu- lar Force, Erin- pura (Local).	847	742	15·4	19	619·9 22·43 9·45	Admitted Died Invalided	...	...	...	...	182	15	...	...	1	29	10	15	21	...	...	...	8	11	460	...
195	1st Lancers, Hyderabad Contingent, Mominabad, November, 1894, from Au- rangabad.	511	471	11·3	10	806·8 5·87 3·91	Admitted Died Invalided	...	...	...	...	204	4	3	...	...	1	5	15	2	...	...	...	2	5	380	...
196	2nd Lancers, Hyderabad Contingent, Bolarum, De- cember, 1894, from Momi- nabad.	529	493	14·2	14	803·2 11·34 11·34	Admitted Died Invalided	18	1	...	...	66	11	1	...	1	3	13	36	2	...	...	1	4	2	396	...

NATIVE TROOPS, 1896.

TABLE XXXIX—continued. STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatitis Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
197	3rd Lancers, Hyderabad Contingent, Aurangabad, January, 1895, from Hingoli.	542	500	8·6	3	538·0 1·85 5·54	Admitted Died Invalided	...	...	1	...	71	10	...	...	...	6	10	8	...	...	...	...	8	5	269	...
198	4th Lancers, Hyderabad Contingent, Hingoli, December, 1894, from Bolarum.	538	493	18·5	14	687·6 5·58 3·72	Admitted Died Invalided	...	1	...	...	125	5	2	...	...	7	2	13	...	...	1	...	8	5	339	...
199	1st Infantry, Hyderabad Contingent, Hingoli, Feb- ruary, 1893, from Ellichpur.	839	761	11·3	14	411·3 17·88 7·15	Admitted Died Invalided	...	5	...	...	154	11	2	...	1	23	7	12	...	...	1	1	4	3	313	...
200	2nd Infantry, Hyderabad Contingent, Bolarum, December, 1892, from Jalna.	834	769	8·4	11	360·2 1·20 3·60	Admitted Died Invalided	31	...	1	...	82	20	1	2	...	8	10	7	...	1	1	1	4	7	277	...
201	3rd Infantry, Hyderabad Contingent, Ellichpur, January, 1893, from Hingoli.	837	769	15·5	5	775·0 10·75 5·97	Admitted Died Invalided	...	...	...	...	301	5	1	...	1	15	17	23	...	2	...	1	17	1	596	...
202	4th Infantry, Hyderabad Contingent, Aurangabad, January, 1893, from Raichur.	846	773	8·2	6	406·2 2·36 2·36	Admitted Died Invalided	...	...	...	...	149	9	1	...	...	14	10	11	...	...	2	2	8	1	314	...
203	5th Infantry, Hyderabad Contingent, Raichur, Janu- ary, 1893, from Aurangabad.	846	765	12·2	6	389·5 11·82 2·36	Admitted Died Invalided	...	1	...	...	49	4	...	...	...	9	10	31	...	...	...	5	15	1	298	...
204	6th Infantry, Hyderabad Contingent, Jalna, January, 1893, from Bolarum.	855	783	14·3	6	496·8 4·68 1·17	Admitted Died Invalided	...	1	...	...	214	...	3	...	...	13	4	9	...	...	2	1	21	...	389	...
205	No. 1 Field Battery, Hy- derabad Con- tingent, Bolarum, December, 1894, from Aurangabad.	109	103	2·9	...	640·8 ... 9·17	Admitted Died Invalided	7	...	...	...	12	...	...	...	...	...	3	3	...	1	...	...	3	...	66	...
206	No. 2 Field Battery, Hy- derabad Con- tingent, Aurangabad, January, 1895, from Bolarum.	112	103	2·3	2	534·0 17·86 ...	Admitted Died Invalided	...	...	...	...	14	2	...	...	...	4	2	...	...	...	1	...	1	1	55	...
207	No. 3 Field Battery, Hyderabad Contingent, Hingoli, December, 1894, from Ellichpur.	113	101	1·7	4	505·0 ... 8·85	Admitted Died Invalided	...	...	...	...	26	1	...	...	...	1	1	2	...	...	...	...	3	...	51	...

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move, Commands.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Veneral Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
208	No. 4 Field Battery, Hyderabad Contingent, Ellichpur, December, 1894, from Hingoli.	110	98	4'1	3	1887'8 27'27 18'18	Admitted Died Invalided	...	...	...	...	103	1	1	...	...	7	1	5	3	...	1	...	2	1	185	...
1	BENGAL . . .	31,322	26,796	818'8	625	81'22 11'17 9'45	Admitted Died Invalided	259	52	18	12	8,085	420	269	19	98	402	677	1,209	371	2	34	40	1,380	410	21,764	...
2	PUNJAB . . .	40,696	34,166	947'5	955	752'5 16'66 8'67	Admitted Died Invalided	389	6	38	3	8,390	800	105	23	125	826	1,107	1,184	321	1	32	116	886	551	25,709	...
3	MADRAS . . .	27,019	24,829	756'1	740	669'4 10'73 11'36	Admitted Died Invalided	134	25	50	1	5,622	102	285	64	38	129	547	764	186	2	32	4	1,162	641	16,621	...
4	BOMBAY . . .	27,247	24,369	665'4	507	880'5 10'83 14'02	Admitted Died Invalided	415	20	34	4	8,574	476	488	27	42	286	747	1,027	317	4	30	172	1,095	285	21,456	...
5	CENTRAL INDIA AND RAJPUT- ANA CORPS.	5,841	5,099	103'7	151	625'8 12'84 11'13	Admitted Died Invalided	41	19	7	...	1,090	70	103	1	10	123	107	95	40	...	6	4	98	63	3,191	...
6	HYDERABAD CONTINGENT.	7,621	6,982	133'5	98	562'6 7'74 4'72	Admitted Died Invalided	56	9	2	...	1,570	83	15	2	4	110	95	175	11	...	9	12	100	32	3,928	...
7	CHITRAL . . .	1,627	1,627	55'9	...	1381'7 20'90 ...	Admitted Died Invalided	66	...	...	...	890	74	...	...	5	31	77	282	39	...	60	18	42	2,248	...	
8	MALAKAND . . .	2,884	2,884	19'8	...	525'3 15'26 ...	Admitted Died Invalided	2	...	...	...	541	65	...	3	...	53	156	175	21	1	8	18	15	59	1,515	...
9	SUAKIN FIELD FORCE.	1,191	1,191	28'5	...	659'1 3'36 ...	Admitted Died Invalided	...	...	...	...	115	13	5	3	2	8	14	102	30	...	5	103	22	19	785	...
10	MOMBASA FIELD FORCE.	244	244	28'7	...	2315'6 8'20 ...	Admitted Died Invalided	2	...	...	...	432	...	...	...	...	1	4	50	...	...	5	2	3	565	...	
	INDIA . . .	145,692	128,187	3557'9	3,076	762'8 12'57 9'88	Admitted Died Invalided	1364	131	149	20	35,309	2,103	1,270	142	324	1,969	3,531	5,063	1,336	10	156	534	4,778	2,105	97,782	...

TABLE XXXIX—continued.

STATISTICS OF REGIMENTS.

B.—Race Composition and Location of Detachments.

Serial No.*	CORPS AND THEIR DETACHMENTS.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Mussalmans.	Trans-Indus Pathans.	Other Mussalmans.	Total Mussalmans.	Native Christians.	Burmans.	Jews.	TOTAL.
1	Governor General's Body Guard, Dehra Dun, with 8 men detached at Simla . . .	13	29	...	...	22	64	...	12	...	43	55	...	...	...	119
2	1st Bengal Cavalry, Meerut, with 41 men detached at Delhi	2	...	...	...	4	6	...	13	...	602	615	...	...	...	621
3	2nd Bengal Lancers, Bareilly	147	154	2	...	154	457	...	56	...	102	158	...	...	...	615
4	3rd Bengal Cavalry, Fyzabad, with 12 men detached at Lucknow	77	153	...	...	155	385	...	6	2	232	240	...	...	...	625
5	4th Bengal Cavalry, Cawnpore	9	135	17	...	141	302	...	28	3	291	322	1	...	...	625
6	5th Bengal Cavalry, Nowgong, with 95 men detached at Alipore	94	28	19	...	215	356	...	27	2	239	268	...	...	...	624
7	7th Bengal Cavalry, Lucknow	74	80	75	...	225	454	...	7	...	161	168	...	...	...	622
8	8th Bengal Cavalry, Allahabad	117	90	...	...	97	304	54	86	9	168	317	...	...	...	621
9	14th Bengal Lancers, Saugor, with 111 men detached at Jubbulpore and Sutna . . .	6	...	...	...	584	590	...	6	...	19	25	2	...	...	617
10	Bengal Sappers and Miners, Roorkee, with 494 men detached at Rawalpindi, Peshawar, Quetta, and Chitral	126	479	18	10	158	791	...	412	80	125	617	2	...	...	1,410
11	1st Bengal Infantry, Jhansi	4	5	...	...	851	860	...	6	...	19	25	8	...	...	893
12	2nd Bengal Infantry, Silchar	420	...	...	...	77	497	...	...	...	35	35	19	...	...	551
13	Wing, 2nd Bengal Infantry, Dibrugarh, with 50 men detached at Sadiya	294	...	...	...	57	351	...	...	...	7	7	...	...	...	358
14	3rd Bengal Infantry, Allahabad	1	...	...	...	833	834	...	...	...	51	51	6	...	...	891
15	4th Bengal Infantry, Dinapore	598	12	...	...	20	630	...	...	...	42	42	12	...	...	684
16	Detachment, 4th Bengal Infantry, Gantak .	201	7	...	...	12	220	...	...	...	6	6	...	...	...	226
17	5th Bengal Infantry, Alipore, with 50 men detached at Dum-Dum . . . . .	...	3	3	...	17	23	...	4	8	865	877	6	...	...	906
18	6th Bengal Infantry, Meerut . . . . .	...	1	...	...	852	853	...	...	...	54	54	...	...	...	907
19	7th Bengal Infantry, Lucknow	790	8	...	...	57	855	...	...	...	53	53	4	...	...	912
20	8th Bengal Infantry, Nowgong	760	13	7	2	83	865	6	...	...	28	34	...	...	...	899
21	9th Gurkha Rifles, Lansdowne	68†	1	3	658	9	739	7	16	...	...	23	16	...	...	778
22	10th Bengal Infantry, Benares	2	7	...	...	823	832	...	3	...	24	27	19	...	...	878
23	11th Bengal Infantry, Doranda	374	...	...	...	46	420	...	1	...	46	47	5	...	...	472
24	Wing, 11th Bengal Infantry, Buxa	354	...	...	...	59	413	2	1	...	8	11	...	...	...	424
25	12th Bengal Infantry, Bareilly	1	3	...	...	11	15	...	34	4	845	883	9	...	...	907
26	13th Bengal Infantry, Fyzabad	679	40	...	29	100	848	...	2	...	23	25	7	...	...	880
27	16th Bengal Infantry, Cawnpore, with 70 men detached at Fatehgarh	821	16	1	...	16	854	...	2	...	33	35	11	...	...	900
28	17th Bengal Infantry, Agra, with 20 men detached at Jhansi and Nowgong . . .	1	2	...	...	7	10	...	29	...	855	884	13	...	...	907
29	18th Bengal Infantry, Fort William, with 56 men detached at Dum-Dum . . . .	...	...	...	2	11	13	...	8	...	851	859	3	...	...	875
30	29th Punjab Infantry, Delhi, with a Depot of 45 men at Meerut . . . . .	...	456	219	...	2	677	...	217	3	4	224	8	...	...	909
31	39th Garhwal Rifles, Lansdowne, with 140 men detached at Naini Tal	865†	...	...	28	15	908	...	...	...	...	...	...	...	...	908
32	42nd Gurkha Rifles, Shillong . . . . .	...	...	...	908	2	910	...	...	...	4	4	...	...	...	914
33	43rd Gurkha Rifles, Kohima, with 250 men detached at Manipur . . . . .	...	...	...	869	5	874	...	...	...	9	9	...	...	...	883
34	44th Gurkha Rifles, Manipur, with 164 men detached at Silchar and Changai . . .	1	...	...	870	9	880	...	...	...	6	6	2	...	...	888
35	Wing, 6th Madras Infantry, Cuttack . . .	12	...	...	...	238	250	...	...	...	120	120	16	...	...	386
36	8th Madras Infantry, Barrackpore, with 10 men detached at Bangalore	30	...	...	...	396	426	...	...	...	331	331	67	...	...	824
37	7th Bombay Infantry, Jubbulpore . . .	64	19	11	...	453	547	...	6	...	225	231	14	...	6	798
38	12th Bombay Infantry, Saugor . . . .	...	52	1	...	516	569	...	178	3	12	193	11	...	10	783
39	1-2nd Gurkha Rifles, Dehra Dun	4†	...	...	896	...	900	...	...	...	...	...	...	...	...	900

* These numbers are prefixed to the same regiments as in Table XXXIX-A.
† Garhwalis.

Serial No.	CORPS AND THEIR DETACHMENTS.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Other Hindus.	Total Hindus.	Rohillas.	Punjab Mussalms.	Trans-Indus Pathans.	Other Mussalms.	Total Mussalms.	Native Christians.	Burmans.	Jews.	TOTAL.
40	2-2nd Gurkha Rifles, Dehra Dun . . .	...	...	...	907	...	907	...	...	...	...	...	...	...	...	907
41	1-3rd Gurkha Rifles, Almora, with 34 men detached at Ranikhet . . . . .	...	...	...	902	3	905	...	...	...	...	...	...	...	...	905
42	2-3rd Gurkha Rifles, Lansdowne, with 304 men at Kila Drosh . . . . .	...	...	...	913	1	914	...	...	...	...	...	...	...	...	914
43	No. 5 Bombay Mountain Battery, Dehra Dun, with 130 men in the Suakin Field Force . . . . .	...	109	4	...	3	116	...	123	...	1	124	...	...	...	240
44	Drivers, No. 9 Mountain Battery, Royal Artillery, Darjeeling	1	44	1	...	25	71	...	38	11	29	78	...	...	...	149
45	6th Bengal Cavalry, Jullundur	50	233	23	...	152	458	...	11	4	151	166	...	...	...	624
46	9th Bengal Lancers, Rawalpindi . . .	...	222	65	...	12	299	...	228	84	6	318	...	...	...	617
47	10th Bengal Lancers, Jhelum . . . .	...	236	118	...	32	386	...	155	78	3	236	...	...	...	622
48	11th Bengal Lancers, Nowshera . . .	1	298	133	...	14	446	...	96	55	21	172	1	...	...	619
49	12th Bengal Cavalry, Sialkot . . . .	...	337	96	...	22	455	...	154	3	4	161	...	...	...	616
50	13th Bengal Lancers, Peshawar, with 50 men detached at Jamrud	1	216	127	...	37	381	...	152	73	14	239	...	...	...	620
51	16th Bengal Cavalry, Mooltan . . . .	...	301	151	...	153	605	...	5	...	9	14	...	...	...	619
52	17th Bengal Cavalry, Umballa . . . .	...	...	...	...	2	2	...	307	160	155	622	...	...	...	624
53	18th Bengal Lancers, Ferozepore . . .	...	142	...	...	7	149	...	465	1	9	475	...	...	...	624
54	19th Bengal Lancers, Meean Meer . . .	1	223	71	1	10	306	...	169	130	17	316	...	...	...	622
55	1st Punjab Cavalry, Edwardesabad, with 152 men detached at Jandola, Miran Shah, Idak post, Saidgi, Boya and Datta Khel . . . . .	...	144	73	...	82	299	...	21	107	191	319	...	...	...	618
56	2nd Punjab Cavalry, Dera Ismail Khan, with 196 men detached at Khajuri Kach, Tank, Jutta, Draband and Wana . . .	75	222	...	...	5	302	...	119	110	87	316	...	...	...	618
57	3rd Punjab Cavalry, Kohat, with 63 men detached at Fort Parachinar and Bahadur Khel	13	215	44	...	33	305	...	93	77	144	314	...	...	...	619
58	5th Punjab Cavalry, Dera Ghazi Khan, with 23 men detached at Mangrota . . .	5	229	63	...	9	306	...	133	78	89	300	...	...	...	606
59	14th Sikh Infantry, Ferozepore, with 226 men detached at Sarwekai . . . . .	...	880	11	...	...	891	...	8	...	...	8	2	...	...	901
60	15th Sikh Infantry, Ferozepore, with 300 men detached at Amritsar, Ludhiana and Malakand . . . . .	...	882	...	2	7	891	...	8	...	6	14	4	...	...	909
61	19th Punjab Infantry, Mooltan, with 502 men detached at Jandola, Khirji, Jatta, Khajuri Kach, Nili Kach and Draband . .	...	454	2	...	...	456	...	226	224	2	452	...	...	...	908
62	20th Punjab Infantry, Peshawar, with 37 men detached at Jamrud . . . . .	...	226	226	...	1	453	...	59	371	...	430	...	...	...	883
63	21st Punjab Infantry, Sialkot . . . .	...	343	102	...	13	458	...	135	297	8	440	1	...	...	899
64	22nd Punjab Infantry, Fort Lockhart, with 527 men detached at Depôt Kohat, Fort Cavagnari, Dar and Thal . . . . .	...	456	4	1	6	467	...	329	110	1	440	1	...	...	908
65	23rd Pioneers, Umballa . . . . .	...	841	1	...	46	888	...	12	...	7	19	2	...	...	909
66	Depôt, 24th Punjab Infantry, Mooltan, with 533 men at Malakand . . . . .	...	75	33	...	1	109	...	29	37	5	71	...	...	...	180
67	25th Punjab Infantry, Meean Meer . . .	...	332	210	...	10	552	...	229	103	7	339	4	...	...	895
68	26th Punjab Infantry, Jhelum . . . .	...	435	105	...	11	551	...	20	315	17	352	4	...	...	907
69	27th Punjab Infantry, Rawalpindi, with 69 men detached at Attock and Murree . .	...	313	108	...	38	459	...	231	203	4	438	...	...	...	897
70	Depôt, 28th Punjab Infantry, Ferozepore, with 476 men at Kila Drosh . . . . .	...	40	16	...	2	58	...	55	57	...	112	...	...	...	170
71	30th Punjab Infantry, Peshawar, with 44 men detached at Fort Jamrud . . . . .	...	433	207	3	8	651	...	241	4	13	258	...	...	...	909
72	Depôt, 31st Punjab Infantry, Peshawar, with 670 men at Malakand . . . . .	...	64	24	...	4	92	...	47	2	13	62	5	...	...	159

TABLE XXXIX—continued.
STATISTICS OF REGIMENTS.
B.—Race Composition and Location of Detachments.

Serial No.	CORPS AND THEIR DETACHMENTS.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Other Hindus.	Total Hindus.	Rohillas.	Punjab Mussalmans.	Trans-Indus Pathans.	Other Mussalmans.	Total Mussalmans.	Native Christians.	Burmans.	Jews.	TOTAL.
73	32nd Pioneers, Meean Meer, with 150 men detached at Gilgit . . . . .	...	872	...	...	1	873	...	11	...	...	11	...	...	...	884
74	33rd Punjab Infantry, Rawalpindi, with 38 men detached at Attock . . . . .	...	1	...	...	...	1	...	895	...	4	899	...	...	...	900
75	34th Pioneers, Jhelum . . . . .	...	896	...	...	...	896	...	11	...	...	11	...	...	...	907
76	35th Sikh Infantry, Jullundur, with 373 men in the Suakin Field Force . . . . .	...	902	...	...	2	904	...	5	...	...	5	...	...	...	909
77	36th Sikh Infantry, Peshawar . . . . .	...	886	1	...	3	890	...	18	...	...	18	...	...	...	908
78	37th Dogras, Sialkot, with 57 men detached at Gilgit . . . . .	...	2	900	...	...	902	...	2	...	...	2	1	...	...	905
79	38th Dogras, Nowshera, with 67 men detached at Cherat . . . . .	...	2	878	...	5	885	...	6	...	3	9	6	...	...	900
80	Depôt, 45th Sikhs, Jullundur, with 465 men at Malakand . . . . .	...	166	1	...	1	168	...	4	...	1	5	...	...	...	173
81	1st Punjab Infantry, Abbottabad . . . . .	...	209	105	...	2	316	...	213	383	...	596	...	...	...	912
82	2nd Punjab Infantry, Edwardesabad, with 21 men detached at Janikhel . . . . .	...	339	103	...	7	449	...	349	115	...	464	...	...	...	913
83	4th Punjab Infantry, Wana, with 122 men detached at Depôt, Dera Ismail Khan	5	228	205	...	13	451	...	231	238	6	475	...	...	...	926
84	5th Punjab Infantry, Kohat, with 268 men detached at Fort Parachinar, Sultankot, and Bahadur Khel . . . . .	...	350	115	...	...	465	...	127	314	...	441	...	...	...	906
85	6th Punjab Infantry, Miran Shah, with 217 men detached at Depôt, Edwardesabad, Idak and Saidgi posts	8	221	206	...	8	443	...	139	315	...	454	...	...	...	897
86	1st Sikh Infantry, Miran Shah, with 303 men detached at Depôt, Edwardesabad, Janikhel, Idak, Saidgi, Boya and Datta Khel	2	445	109	...	3	559	4	126	213	...	343	...	...	...	902
87	2nd Sikh Infantry, Dera Ghazi Khan, with 21 men detached at Mangrota . . . . .	...	234	344	...	...	578	...	204	115	2	321	...	...	...	899
88	3rd Sikh Infantry, Dera Ismail Khan, with 39 men detached at Tank . . . . .	...	439	105	...	3	547	...	116	204	13	333	...	...	...	880
89	4th Sikh Infantry, Kohat, with 15 men detached at Bahadur Khel . . . . .	...	454	110	...	1	565	...	225	108	4	337	...	...	...	902
90	Corps of Guides, Mardan, with 92 men at Malakand . . . . .	...	409	147	115	64	735	6	239	382	...	627	...	...	...	1,362
91	1-1st Gurkha Rifles, Dharmsala, with 17 men at Kangra	1*	1	1	897	...	900	...	...	...	...	...	4	...	...	904
92	2-1st Gurkha Rifles, Dharmsala, with 15 men at Kangra . . . . .	...	...	3	888	...	891	...	...	...	...	...	1	...	...	892
93	1-4th Gurkha Rifles, Bakloh, with 140 men detached at Simla . . . . .	...	1	...	897	2	900	...	...	...	...	...	...	...	...	900
94	2-4th Gurkha Rifles, Bakloh . . . . .	...	...	...	902	2	904	...	...	...	...	...	...	...	...	904
95	1-5th Gurkha Rifles, Abbottabad . . . . .	...	...	3	905	4	912	...	1	...	...	1	...	...	...	913
96	Depôt, 2-5th Gurkha Rifles, Abbottabad, with 475 men at Kila Dresh . . . . .	...	...	...	905	4	909	...	...	...	1	1	...	...	...	910†
97	No. 1 Kohat Mountain Battery, Miran Shah . . . . .	...	97	6	...	22	125	...	131	...	...	131	...	...	...	256
98	No. 2 Derajat Mountain Battery, Kohat, with 61 men with Kurram Escort . . . . .	...	119	...	...	7	126	...	129	...	1	130	...	...	...	256
99	No. 3 Peshawar Mountain Battery, Wana, with 73 men detached at Edwardesabad . . . . .	...	124	3	...	3	130	...	129	...	...	129	...	...	...	259
100	No. 4 Hazara Mountain Battery, Abbottabad, with 62 men at Kila Dresh . . . . .	...	108	...	...	5	113	...	110	...	...	110	...	...	...	223
101	Punjab Garrison Battery, Kohat . . . . .	...	33	...	...	3	36	...	35	...	...	35	...	...	...	71
102	No. 6 Bombay Mountain Battery, Dera Ismail Khan, with 16 men detached at Fort Sandeman	3	86	...	...	28	117	...	103	...	2	105	...	...	...	222
103	Drivers, No. 1 Mountain Battery, Royal Artillery, Jutogh . . . . .	...	35	1	...	39	75	...	71	...	3	74	...	...	...	149
104	Drivers, No. 3 Mountain Battery, Royal Artillery, Jutogh . . . . .	...	53	...	...	22	75	...	71	...	...	71	...	...	...	146

* Garhwali.

† Strength shown for the whole regiment.

Serial No.	CORPS AND THEIR DETACHMENTS.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Mussalmans.	Trans-Indus Pathans.	Other Mussalmans.	Total Mussalmans.	Native Christians.	Burmans.	Jews.	TOTAL.
105	Drivers, No. 5 Mountain Battery, Royal Artillery, Baragully . . . . .	...	29	11	...	38	78	...	68	...	2	70	...	...	...	148
106	Drivers, No. 7 Mountain Battery, Royal Artillery, Khyragully . . . . .	...	73	...	...	3	76	...	58	...	15	73	...	...	...	149
107	Drivers, No. 8 Mountain Battery, Royal Artillery, Kalabagh . . . . .	...	27	3	...	19	49	...	92	3	5	100	...	...	...	149
108	Governor's Body-Guard, Madras	3	...	...	...	12	15	...	...	6	92	98	7	...	...	120
109	1st Madras Lancers, Bellary	37	...	...	...	66	103	...	...	...	455	455	24	...	...	582
110	2nd Madras Lancers, Bangalore	37	...	...	...	98	135	...	...	...	413	413	25	...	...	573
111	3rd Madras Lancers, Secunderabad	54	...	...	...	46	100	...	1	51	390	442	25	...	...	567
112	Madras Sappers and Miners, Bangalore, with 794 men detached at Secunderabad, Thayetmyo, Mandalay and Malakand	7	...	...	...	986	993	...	...	...	76	76	241	170	...	1,480
113	1st Madras Pioneers, Bangalore, with 59 men detached at Pagan and Trichinopoly	3	...	...	...	549	552	...	...	...	177	177	85	...	...	814
114	3rd Madras Infantry, Myingyan, with 183 men detached at Kyaukmyaung, Kalewa, Kalemio and Trichinopoly	2	...	...	...	304	306	...	...	...	188	188	63	...	...	557
115	Wing, 3rd Madras Infantry, Shwebo	5	...	...	...	151	156	...	...	...	67	67	8	...	...	231
116	4th Madras Pioneers, Trichinopoly . . . . .	...	...	...	...	538	538	...	...	...	174	174	108	...	...	820
117	5th Madras Infantry, Secunderabad, with 10 men detached at Kamptee	25	...	...	...	426	451	...	7	...	303	310	62	...	...	823
118	Head-Quarters, 6th Madras Infantry, Berhampur	10	...	...	...	264	274	...	...	...	130	130	39	...	...	443
119	9th Madras Infantry, Bellary	9	...	...	...	428	437	...	...	...	292	292	71	...	...	800
120	1st Burma Rifles (10th Madras Infantry), Keng Tung, with 135 men, detached at Mong Hsing and Maymyo . . . . .	...	...	...	688	67	755	...	...	...	...	...	...	...	...	755
121	11th Madras Infantry, Secunderabad	17	...	...	...	474	491	...	...	...	267	267	67	...	...	825
122	2nd Burma Battalion (12th Madras Infantry), Mandalay . . . . .	...	419	2	...	1	422	...	235	191	1	427	1	...	...	850
123	13th Madras Infantry, Thayetmyo, with 142 men detached at Mindat Sakan and Secunderabad	37	...	...	...	347	384	...	...	...	341	341	67	...	...	792
124	14th Madras Infantry, Madras, with 211 men detached at St. Thomas' Mount	39	...	...	...	479	518	...	...	...	231	231	78	...	...	827
125	15th Madras Infantry, Madras . . . . .	...	...	...	...	324	324	...	...	...	440	440	64	...	...	828
126	16th Madras Infantry, Rangoon, with 305 men detached at Port Blair	13	...	...	...	439	452	...	...	...	319	319	60	...	...	831
127	17th Madras Infantry, Rangoon, with 48 men detached at Bangalore	14	...	...	...	421	435	...	...	...	286	286	50	...	...	771
128	19th Madras Infantry, Secunderabad	33	...	...	...	406	439	...	...	...	300	300	68	...	...	807
129	20th Madras Infantry, Vizianagram	34	...	...	...	333	367	...	7	...	370	377	75	...	...	819
130	21st Madras Pioneers, Bangalore, with 16 men detached at Hosur	23	...	...	...	492	515	...	...	...	180	180	96	...	...	791
131	22nd Madras Infantry, Secunderabad	10	...	...	...	395	405	...	...	...	325	325	102	...	...	832
132	23rd Madras Infantry, Trichinopoly, with 26 men detached at Ootacamund	8	...	...	...	402	410	...	3	...	346	349	65	...	...	824
133	24th Madras Infantry, Bangalore, with 60 men detached at Hosur, Ootacamund, Trichoor and Trivandrum	6	...	...	...	362	368	...	...	...	364	364	80	...	...	812
134	25th Madras Infantry, Cannanore	12	...	...	...	323	335	...	...	...	351	351	66	...	...	752
135	26th Madras Infantry, Belgam	12	...	...	...	498	510	...	...	...	222	222	86	...	...	818
136	27th Madras Infantry, Moulmein, with 5 men detached at Vizianagram and Rangoon	17	...	...	...	501	518	...	...	...	253	253	57	...	...	828
137	28th Madras Infantry, Quilon, with 146 men detached at Trichoor and Trivandrum . . . . .	...	...	...	...	455	455	...	...	...	280	280	81	...	...	816
138	7th Burma Battalion (29th Madras Infantry), Meiktila	94	302	...	1	97	494	...	298	5	...	303	29	...	...	826
139	5th Burma Battalion (30th Madras Infantry), Bhamo, with 49 men detached at Thabeitkyin	61	496	...	...	71	618	...	201	...	3	204	...	...	...	822
140	6th Burma Battalion (31st Madras Infantry), Haka, with 30 men detached at Kan and Kalewa	11	96	106	...	49	262	...	127	...	34	161	33	...	...	456

NATIVE TROOPS, 1896.

TABLE XXXIX—continued.

STATISTICS OF REGIMENTS.

B.—Race Composition and Location of Detachments.

Serial No.	CORPS AND THEIR DETACHMENTS.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Mussulmans.	Trans-Indus Pathans.	Other Mussulmans.	Total Mussulmans.	Native Christians.	Burmans.	Jews.	TOTAL.
141	Wing, 6th Burma Battalion (31st Madras Infantry), Falam . . . . .	...	87	87	1	...	175	...	165	...	...	165	...	...	...	340
142	4th Burma Battalion (32nd Madras Infantry), Fort Stedman, with 240 men detached at Thamakan, Toungyi, Bampon and Loikaw . . . . .	...	367	3	...	23	393	...	370	19	23	412	32	...	...	837
143	3rd Burma Battalion (33rd Madras Infantry), Mandalay . . . . .	...	522	1	1	...	524	1	213	112	...	326	...	...	...	850
144	No. 7 Bengal Mountain Battery, Bhamo, with 15 men detached at Fort Harrison . . . . .	...	96	...	...	15	111	...	110	...	...	110	...	...	...	221
145	Drivers, No. 6 Mountain Battery, Royal Artillery, Mandalay	1	70	...	...	4	75	...	71	...	3	74	...	...	...	149
146	Governor's Body-Guard, Poona	12	13	...	...	5	30	...	18	...	16	34	...	...	...	64
147	1st Bombay Lancers, Neemuch, with 285 men at Nasirabad and in the Suakin Field Force	12	146	...	...	266	424	...	4	...	181	185	12	...	...	621
148	2nd Bombay Lancers, Poona	12	104	...	...	215	331	...	82	...	183	265	3	...	2	601
149	3rd Bombay Cavalry, Deesa, with 112 men detached at Rajkot	106	144	...	...	110	360	...	1	12	250	263	2	...	...	625
150	4th Bombay Cavalry, Sirur	130	54	...	...	54	238	...	148	...	226	374	...	...	1	613
151	5th Bombay Cavalry, Quetta, with 50 men detached at Chaman and Hindubagh	7	157	...	...	12	176	...	207	155	66	428	...	...	...	604
152	6th Bombay Cavalry, Jacobabad, with 27 men detached at Sanghar	7	153	...	...	4	164	...	196	153	111	460	1	...	...	625
153	7th Bombay Lancers, Fort Sandeman, with 160 men detached at Khan Mohamed Kot, Mir Ali Khel and Mogulkot . . . . .	...	152	...	...	3	155	...	227	112	126	465	...	...	...	620
154	15th Bengal Lancers, Loralai, with 144 men detached at Gumbaz, Maratangi and Murgha . . . . .	...	4	...	...	2	6	...	214	389	11	614	...	...	...	620
155	Aden Troop, Aden	16	...	...	...	...	16	3	5	...	76	84	...	...	...	100
156	Bombay Sappers and Miners, Kirkee, with 157 men detached at Aden and Mhow	11	63	...	...	605	679	...	19	...	101	120	...	...	3	802
157	1st Bombay Infantry, Shelabagh, with 203 men detached at Peshin, Sibi, Spinwana and Quetta	22	12	...	...	516	550	...	128	2	109	239	13	...	3	805
158	2nd Bombay Infantry, Poona	4	51	...	...	542	597	...	162	1	14	177	17	...	6	797
159	3rd Bombay Infantry, Mhow, with 49 men detached at Asirgarh and Poona	24	16	...	...	624	664	...	3	1	106	110	10	...	9	793
160	4th Bombay Infantry, Poona	130	...	...	...	479	609	...	162	7	28	197	2	...	2	810
161	5th Bombay Infantry, Ahmedabad, with 241 men detached at Rajkot and Sadra	5	63	...	...	618	686	...	1	2	98	101	5	...	5	797
162	8th Bombay Infantry, Baroda, with 38 men detached at Surat	16	9	...	...	509	534	...	142	...	98	240	6	...	8	788
163	9th Bombay Infantry, Ahmednagar, with 133 men detached at Malegaon and Nasik	11	103	...	...	478	592	...	118	...	86	204	11	...	4	811
164	10th Bombay Infantry, Satara, with 27 men detached at Poona	13	13	...	...	592	618	...	10	...	130	140	12	...	9	779
165	13th Bombay Infantry, Aden, with 164 men detached at Zaila, Perim, Bulhar, Sheikh Othman and Berbera	13	29	...	...	505	547	...	174	1	46	221	4	...	...	772
166	14th Bombay Infantry, Deesa	31	57	1	...	607	696	...	4	...	74	78	15	...	9	798
167	16th Bombay Infantry, Quetta	32	11	...	...	603	646	...	5	...	102	107	9	...	3	765
168	17th Bombay Infantry, Bhuj	64	13	...	1	622	700	...	15	1	56	72	8	...	3	783
169	19th Bombay Infantry, Poona	85	1	3	...	540	629	...	...	...	144	144	5	...	3	781
170	20th Bombay Infantry, Mhow, with 193 men detached at Indore	86	50	...	...	455	591	...	2	2	84	88	15	...	...	694
171	21st Bombay Infantry, Bombay, with 96 men detached at Bushire, Bagdad, Muscat and Butcher's Island . . . . .	...	...	...	...	354	354	...	4	2	427	433	19	...	...	806
172	22nd Bombay Infantry, Bombay, with 94 men detached at Thana	83	1	...	...	473	557	...	2	...	171	173	14	...	12	756
173	23rd Bombay Infantry, Nasirabad	125	8	...	...	294	427	...	110	...	47	157	19	...	...	603
174	Wing, 23rd Bombay Infantry, Neemuch	7	69	...	...	82	158	...	18	...	17	35	...	...	...	193

Serial No.	CORPS AND THEIR DETACHMENTS.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Mussulmans.	Trans-Indus Pathans.	Other Mussulmans.	Total Mussulmans.	Native Christians.	Burmans.	Jews.	TOTAL.
175	24th Bombay Infantry, Quetta, 213 men with Baluch-Afghan Boundary Commission and Mombasa Field Force	1	1	...	3	2	7	...	281	476	105	862	...	...	...	869
176	25th Bombay Infantry, Quetta, with 30 men detached at Spintangi and Harnai . .	150	2	...	...	373	525	...	194	...	39	233	3	...	2	763
177	26th Bombay Infantry, Chaman . . . .	...	5	...	...	7	12	...	44	562	281	887	...	...	...	899
178	1st Baluch Battalion (27th Bombay Infantry), Hyderabad, with 181 men detached at Jacobabad and Sanghar . . . .	...	34	2	...	13	49	...	198	182	349	729	...	...	...	778
179	28th Bombay Infantry, Kirkee	8	39	...	2	553	602	...	6	131	52	189	7	...	6	804
180	2nd Baluch Battalion (29th Bombay Infantry), Loralai, with 55 men detached at Murgha . . . . .	...	...	3	...	...	3	...	246	401	150	797	...	...	...	800
181	3rd Baluch Battalion (30th Bombay Infantry), Kurrachee, with 71 men on Perso-Baluch Boundary Commission	1	7	1	...	11	20	...	297	165	320	782	1	...	...	803
182	2nd Madras Infantry, Raipur	4	...	...	...	270	274	...	...	...	181	181	76	...	...	531
183	Wing, 2nd Madras Infantry, Sambalpur . .	15	...	...	...	170	185	...	...	...	86	86	11	...	...	282
184	7th Madras Infantry, Kamptee, with 92 men detached at Sitabaldi	20	...	...	...	328	348	...	...	...	412	412	69	...	...	829
185	40th Pathans, Fort Sandeman, with 130 men detached at Mir Ali Khel and Mogulkot .	...	2	...	...	4	6	...	3	871	2	876	...	...	...	882
186	Drivers, No. 2 Mountain Battery, Royal Artillery, Quetta	3	27	10	...	33	73	...	76	...	...	76	...	...	...	149
187	1st Central India Horse, Agar, with 29 men detached at Indore	62	227	...	...	70	359	...	68	46	139	253	...	...	...	612
188	2nd Central India Horse, Goona, with 47 men detached at Gwalior and Sehore . .	25	227	...	...	121	373	3	62	18	166	249	3	...	...	625
189	Malwa Bhil Corps, Sirdarpore, with 153 men detached at Alirajpore, Barwani and Jhabwa	3	...	...	...	606	609	...	...	...	2	2	...	...	...	611
190	Meywar Bhil Corps, Kherwara, with 196 men detached at Kotra and Oodeypore . .	11	...	...	...	681	692	...	1	...	19	20	...	...	...	712
191	Bhopal Battalion, Sehore, with 63 men detached at Indore	181	183	86	...	260	710	...	27	...	187	214	9	...	...	933
192	Merwara Battalion, Ajmere, with 67 men detached at Beawar and Sambhar	6	...	...	...	680	686	...	...	...	22	22	...	...	...	708
193	Deoli Irregular Force, Deoli, with 167 men detached at Jhalawar, Jeypore, Kota and Ulwar	105	100	...	...	569	774	...	9	...	31	40	...	...	...	814
194	Erinpura Irregular Force, Erinpura, with 135 men detached at Mount Abu, Bikanir and Pachbadra	119	86	...	...	511	716	...	8	...	114	122	...	...	...	838
195	1st Lancers, Hyderabad Contingent, Mominabad	66	136	...	...	68	270	...	...	...	229	229	...	...	...	499
196	2nd Lancers, Hyderabad Contingent, Bolarum	18	153	...	...	72	243	...	...	...	255	255	1	...	...	499
197	3rd Lancers, Hyderabad Contingent, Aurangabad	6	176	...	...	28	210	...	5	1	314	320	...	...	...	530
198	4th Lancers, Hyderabad Contingent, Hingoli	9	171	...	...	34	214	...	3	1	301	305	1	...	...	520
199	1st Infantry, Hyderabad Contingent, Hingoli, with 9 men detached at Bolarum	230	...	...	...	273	503	...	...	...	329	329	2	...	...	834
200	2nd Infantry, Hyderabad Contingent, Bolarum	276	...	...	...	281	557	...	...	...	255	255	16	...	...	828
201	3rd Infantry, Hyderabad Contingent, Ellichpur, with 8 men detached at Bolarum . .	206	...	...	...	294	500	...	3	...	310	313	6	...	...	819
202	4th Infantry, Hyderabad Contingent, Aurangabad, with 8 men detached at Bolarum .	198	...	...	...	330	528	...	3	...	287	290	12	...	...	830
203	5th Infantry, Hyderabad Contingent, Raichur, with 10 men detached at Bolarum . .	145	32	...	...	366	543	...	7	...	279	286	7	...	...	836
204	6th Infantry, Hyderabad Contingent, Jalna, with 8 men detached at Bolarum	315	...	...	...	208	523	...	...	...	326	326	4	...	...	853
205	No. 1 Field Battery, Hyderabad Contingent, Bolarum	20	...	...	...	41	61	...	...	...	50	50	...	...	...	111
206	No. 2 Field Battery, Hyderabad Contingent, Aurangabad	22	...	...	...	34	56	...	2	...	53	55	1	...	...	112
207	No. 3 Field Battery, Hyderabad Contingent, Hingoli	21	...	...	...	37	58	...	...	...	54	54	1	...	...	113
208	No. 4 Field Battery, Hyderabad Contingent, Ellichpur	23	...	...	...	35	58	...	...	...	55	55	...	...	...	113

NATIVE TROOPS, 1895.

TABLE XXXIX—concluded.
STATISTICS OF REGIMENTS.
B.—Race Composition and Location of Detachments.

COMMANDS.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Mussulmans.	Trans-Indus Pathans.	Other Mussulmans.	Total Mussulmans.	Native Christians.	Burmans.	Jews.	TOTAL.
BENGAL	7,010	1,946	381	6,994	7,364	23,695	69	1,321	125	6,568	8,083	261	...	16	32,055
PUNJAB	165	16,633	5,373	5,516	1,031	28,718	10	7,656	5,073	1,045	13,784	36	...	...	42,538
MADRAS	634	2,445	199	691	10,846	14,815	1	1,808	384	7,696	9,889	2,015	170	...	26,889
BOMBAY	1,266	1,613	20	6	11,933	14,838	3	3,526	3,628	5,161	12,318	369	...	90	27,615
CENTRAL INDIA AND RAJPUTANA CORPS	512	823	86	...	3,498	4,919	3	175	64	680	922	12	...	...	5,853
HYDERABAD CONTINGENT . .	1,555	668	...	...	2,101	4,324	...	23	2	3,097	3,122	51	...	...	7,497
INDIA	11,142	24,128	6,059	13,207	36,773	91,309	86	14,509	9,276	24,247	48,118	2,744	170	106	142,447

Death-rate per 1,000 of strength.*

	Bengal.	Punjab.	Madras.	Bombay.	Central India and Rajputana Corps.	Hyderabad Con-tingent.	India.
Rajputs	2'27	'02	'07	'70	1'71	1'84	'80
Sikhs	'32	5'95	1'63	'62	1'37	'52	2'23
Dogras or other Hill Hindus .	'10	3'86	'11	...	'17	...	1'13
Gurkhas	3'42	1'47	'93	...	...	...	1'32
Other Hindus	3'32	'57	4'26	4'70	7'70	2'62	2'99
Total Hindus	9'42	11'87	7'00	6'02	10'96	4'99	8'46
Rohillas . . . . .	...	...	...	...	...	...	...
Punjabi Mussulmans . . .	'42	2'48	'67	'99	'51	...	1'11
Trans-Indus Pathans . . .	'03	1'97	'07	1'36	'34	...	'84
Other Mussulmans	1'21	'32	2'52	2'17	1'03	2'62	1'40
Total Mussulmans	1'66	4'77	3'26	4'51	1'88	2'62	3'35
Native Christians	'10	'02	'44	'29	...	'13	'17
Burmans . . . . .	...	...	'04	...	...	...	'01
Jews . . . . .	...	...	...	'04	...	...	'01

* As far as data are available.

III.—PRISONERS, 1896.

TABLE K.

FAILS by ADMINISTRATIONS.

ANDAMANS :—
Port Blair Convict Settlement.

BURMA :—
Akyab.
Kyaukpyu.
Sandoway.
Myanaung.
Henzada.
Bassein.
Maubin.
Rangoon (Europeans).
" (Natives).
Insein.
Moulmein.
Tavoy.
Mergui.
Toungoo.
Shwegyin.
Thayetmyo.
Myingyan.
Monywa.
Pakókku.
Yamethin.
Taungdwingyi.
Pagan.
Minbu.
Magwe.
Mandalay.
Shwebo.
Bhamo.
Meiktila.
Katha.
Kindat.
Prome.

ASSAM :—
Sylhet.
Cachar (Silchar).
Gauhati.
Tezpur.
Sibsagar.
Dibrugarh.
Dhubri.
Nowgong.
Shillong.

BENGAL :—
Presidency (Europeans).
" (Natives).
Alipore.
Baraset.
Jessore.
Khulna.
Krishnagar (Nadia).
Murshidabad (Berhampore).
Hooghly.
Burdwan.
Malda.
Purneah.
Jalpaiguri.
Dinajpur.
Rangpur.
Rajshahi (Rampur Boalia).
Bogra.
Mymensingh.
Pabna.
Faridpur.
Backergunge (Barisal).
Noakhali.
Chittagong.
Tippera (Comilla).
Dacca.
Cuttack.
Puri.
Balasore.
Midnapore.
Bankura.
Suri (Birbhum).
Naya Dumka.
Monghyr.
Bhagalpur.
Purulia (Manbhum).
Chaibassa (Singhbhum).
Ranchi (Lohardaga).
Palamau (Daltongunge).
Hazaribagh.
Gaya.
Patna (Bankipore).
Arrah (Shahabad).

BENGAL—*contd.*
Buxar.
Champarun (Motihari).
Muzaffarpur.
Darbhanga.
Chapra (Saran).
Darjeeling.

N.-W. P. AND OUDH :—
Ghazipur.
Benares, Central.
" District.
Chunar.
Mirzapur.
Azamgarh.
Jaunpur.
Gorakhpur.
Basti.
Gonda.
Bahraich.
Fyzabad.
Sultanpur.
Rai Bareli.
Partabgarh.
Hardoi.
Kheri.
Lucknow, Central.
" District.
Sitapur.
Barabanki.
Unao.
Hamirpur.
Orai (Jalaun).
Fatehgarh, Central.
" District.
Cawnpore.
Fatehpur.
Banda.
Allahabad, Central.
" District.
Etawah.
Mainpuri.
Etah.
Aligarh.
Bulandshahr.
Shahjahanpur.
Bareilly, Central.
" District.
Budaon.
Saharanpur.
Bijnor.
Dehra Dun.
Muzaffarnagar.
Moradabad.
Meerut.
Muttra.
Agra, Central.
" District.
Jhansi.
Lalitpur.
Almora.

PUNJAB :—
Delhi.
Rohtak.
Hissar.
Karnal.
Umballa.
Ludhiana.
Hoshiarpur.
Jullundur.
Ferozepore.
Amritsar.
Lahore, Central.
" District.
" Female.
Sialkot.
Gurdaspur.
Gujranwala.
Chinawan.
Gujrat.
Jhelum.
Rawalpindi.
Shahpur.
Montgomery.
Jhang.
Mooltan, Central.
" District.
Dera Ghazi Khan.
Dera Ismail Khan.
Bannu.
Kohat.
Peshawar.

PUNJAB—*contd.*
Simla.
Dharmasala.
Abbottabad.

BOMBAY :—
Kurrachee.
Hyderabad.
Sind Gang.
Shikarpur.
Ahmedabad.
Rajkot.
Nasik.
Dhulia.
Yerrowda (Poona).
Dharwar.
Bijapur District.
Deccan Gang.
Thana.
Bombay Common.
" House of Correction.
Ratnagiri.
Karwar.
Aden.

BERAR AND SECUNDERABAD :—
Amraoti.
Akola.
Ellichpur.
Buldana.
Basim.
Yeotmahl.
Secunderabad.

CENTRAL PROVINCES :—
Jubbulpore.
Saugor.
Damoh.
Sambalpur.
Raipur.
Bilaspur.
Mandla.
Seoni.
Chhindwara.
Betul.
Narsinghpur.
Hoshangabad.
Nimar (Khandwa).
Nagpur.
Bhandara.
Wardha.
Chanda.
Sironcha.
Balaghat (Burha).

MADRAS :—
Mangalore.
Cannanore.
Madras Debtors, Natives.
" Penitentiary, "
" " Europeans.
Madras Debtors, Europeans.
Bellary.
Vellore.
Cuddalore.
Coimbatore.
Madura.
Trichinopoly.
Salem.
Tanjore.
Palamcottah.
Rajamundry.
Vizagapatam.
Nellore.
Berhampur.
Russellkonda.
Parvatipuram (Closed on 26th February 1896.)

RAJPUTANA :—
Ajmere.

BALUCHISTAN :—
Quetta.

TABLE XL.

RATIOS of ADMINISTRATIONS.

The ratios of admissions and deaths to strength are taken from Table XLII.

The actuals will be found in Table XLIII.

RATIO PER 1,000 OF THE AVERAGE STRENGTH.											
	Anda- mans.	Burma.	Assam.	Bengal.	N.-W. P. and Oudh.	Punjab.	Bombay.	Berar and Se- cunder- abad.	Central Provin- ces.	Madras.	India.*
I. AVERAGE ANNUAL STRENGTH	10,520	14,460	1,273	16,542	32,830	11,894	7,092	1,432	5,583	8,120	110,090
II. CONSTANTLY SICK-RATE OF EACH MONTH—											
January	44'7	33'0	52'6	35'4	57'4	42'4	33'4	25'5	40'3	26'6	42'7
February	40'3	31'1	48'2	45'7	53'9	29'9	33'8	23'4	43'1	29'5	41'4
March	41'7	32'0	48'4	49'6	57'8	29'5	33'2	22'3	35'4	28'3	42'9
April	44'6	34'5	55'0	40'4	54'5	28'9	33'6	19'6	30'5	25'9	40'8
May	52'1	32'1	65'1	35'3	47'8	29'2	31'9	14'0	27'9	23'9	38'1
June	65'8	39'3	62'5	36'7	48'6	29'2	33'8	11'2	28'9	25'6	41'1
July	55'8	42'0	57'0	38'7	52'5	35'3	37'0	16'1	37'4	27'0	43'4
August	51'9	41'4	57'9	40'7	54'1	35'9	39'2	19'2	45'4	29'6	44'6
September	44'8	35'7	66'6	41'4	52'2	30'7	38'3	17'0	53'0	29'8	42'6
October	39'4	33'9	58'4	38'7	47'3	27'8	42'3	14'9	53'3	27'7	39'7
November	35'9	34'7	42'2	38'0	44'5	26'1	35'5	18'9	41'3	28'7	37'1
December	36'1	29'9	34'7	35'6	44'9	25'4	32'9	15'7	41'6	27'0	35'8
OF THE YEAR	46'1	35'1	53'4†	39'6	51'2‡	30'8	35'3	18'2	40'8	27'5	40'8
INCLUDING SUBSIDIARY JAILS AND LOCKUPS . . . . .	...	...	50'8	38'8	51'3	30'7	32'0	...	...	25'5	40'1
III. ADMISSION-RATE OF THE YEAR—											
Influenza . . . . .	...	...	6'3	84'4	52'7	44'0	4'5	26'5	50'2	16'6	37'6
Cholera . . . . .	...	1'0	2'4	6'9	'8	...	7'3	4'2	5'9	'5	2'3
Small-pox . . . . .	...	'1	...	'2	2'3	'9	2'7	'7	'5	'2	1'1
Enteric Fever . . . . .	...	'3	...	'2	'2	...	...	...	'5	...	'2
Intermittent Fever	553'9	139'9	334'6	257'3	231'2	494'6	255'4	187'2	285'2	115'5	278'5
Remittent Fever	16'5	20'5	29'9	12'3	16'0	7'0	10'6	9'1	7'5	3'6	13'4
Simple Continued Fever	24'8	35'1	5'5	67'8	7'0	4'4	4'4	2'8	8'4	64'0	25'5
Tubercle of the lungs	6'5	7'8	5'5	7'3	6'0	4'7	9'9	1'4	9'1	14'0	7'2
Pneumonia	3'0	8'0	10'2	15'1	32'2	18'6	27'5	19'6	23'8	6'8	19'1
Other Respiratory Diseases	76'2	25'7	16'5	35'0	32'3	49'2	42'6	20'3	30'4	39'0	38'5
Dysentery	68'9	73'0	179'9	231'6	48'2	63'1	64'6	34'2	135'9	73'0	91'2
Diarrhœa	59'3	39'1	143'8	100'5	50'2	85'0	69'2	25'8	158'9	11'2	65'4
Spleen Diseases	6'6	1'1	13'4	8'8	13'3	9'2	9'9	3'5	13'3	4'8	8'9
Scurvy	'4	'1	...	1'1	'2	'5	3'7	3'5	7'0	1'2	1'0
Anæmia and Debility	33'4	9'0	22'8	11'9	62'4	12'4	18'2	27'9	35'5	4'6	30'1
Abscess, Ulcer, and Boil	157'1	103'6	78'6	42'5	101'9	197'1	72'8	54'5	103'0	45'9	101'8
ALL CAUSES	1349'7	759'2	1033'8	1221'2	891'7	1233'9	894'7	594'3	1112'1	687'8	982'5
INCLUDING SUBSIDIARY JAILS AND LOCKUPS . . . . .	...	...	1127'8	1125'8	897'1	1230'4	861'4	...	...	582'7	971'2
IV. DEATH-RATE OF THE YEAR—											
Cholera . . . . .	...	'55	1'57	3'75	'49	...	3'67	1'40	3'94	'25	1'27
Small-pox . . . . .	...	'07	...	...	'12	'42	...	...	'18	...	'10
Enteric Fever . . . . .	...	'14	...	'12	'06	...	...	...	'18	...	'06
Intermittent Fever . . . . .	...	'28	5'50	1'57	1'40	'25	'14	'70	'18	2'83	1'02
Remittent Fever	2'19	'62	3'14	1'57	'73	'67	1'97	...	1'79	...	1'07
Simple Continued Fever . . . . .	...	...	...	...	'12	...	...	...	...	...	'04
Tubercle of the lungs	3'80	4'50	3'14	3'14	2'44	1'85	2'26	'70	5'37	3'45	3'07
Pneumonia	1'71	2'01	3'93	2'78	6'61	3'78	7'76	4'89	6'63	2'09	4'34
Other Respiratory Diseases	'57	'76	1'57	'54	1'16	'50	2'12	2'79	1'43	'62	'94
Dysentery	6'08	2'97	13'35	7'38	4'75	1'68	3'24	'70	32'60	2'83	5'91
Diarrhœa	1'43	'83	6'28	1'15	2'38	'67	2'82	'70	10'21	...	1'98
Hepatic Abscess . . . . .	...	'21	...	'18	'03	...	...	...	'18	'25	'09
Anæmia and Debility	1'43	'28	6'28	1'27	2'50	'17	'85	4'89	2'15	...	1'43
Phagedæna, Slough and Gangrene	'10	...	...	...	...	...	...	...	...	...	'01
ALL CAUSES	23'29	18'19	56'56	29'20	28'82	15'64	33'56	25'14	72'36	20'81	27'69
INCLUDING SUBSIDIARY JAILS AND LOCKUPS . . . . .	...	...	50'85	28'64	28'83	15'64	31'98	...	...	19'51	27'34
V. PERCENTAGE IN 100 ADMISSIONS—											
Influenza . . . . .	...	...	'61	7'53	5'91	3'56	'50	4'47	4'51	2'42	3'83
Cholera . . . . .	...	'13	'23	'61	'09	...	'82	'71	'53	'07	'23
Small-pox . . . . .	...	'02	...	'02	'26	'07	'30	'12	'05	'04	'11
Enteric Fever . . . . .	...	'04	...	'02	'03	'01	...	...	'05	...	'02
Intermittent Fever	41'04	18'43	32'37	22'95	25'92	40'09	28'54	31'49	25'64	16'79	28'34
Remittent Fever	1'23	2'70	2'89	1'10	1'79	'57	1'18	1'53	'68	'52	1'37
Simple Continued Fever	1'84	4'62	'53	6'05	'78	'35	'49	'47	'76	9'31	2'60
Tubercle of the lungs	'48	1'03	'53	'65	'67	'38	1'10	'24	'82	2'04	'74
Pneumonia	'23	1'05	'99	1'34	3'61	1'51	3'07	3'29	2'14	'98	1'94
Other Respiratory Diseases	5'65	3'38	1'60	3'12	3'62	3'99	4'76	3'41	2'74	5'68	3'92
Dysentery	5'11	9'62	17'40	20'66	5'40	5'11	7'22	5'76	12'22	10'62	9'28
Diarrhœa	4'39	5'15	13'91	8'96	5'63	6'89	7'74	4'35	14'29	1'63	6'66
Spleen Diseases	'49	'15	1'29	'79	1'49	'75	1'10	'59	1'19	'70	'91
Scurvy	'03	'01	...	'10	'02	'04	'41	'59	'63	'18	'11
Anæmia and Debility	2'47	1'18	2'20	1'06	7'00	1'01	2'03	4'70	3'19	'66	3'06
Abscess, Ulcer and Boil	11'64	13'65	7'60	3'79	11'43	15'97	8'13	9'17	9'26	6'68	10'36
VI. PERCENTAGE IN 100 DEATHS—											
Cholera . . . . .	...	3'0	2'8	12'8	1'7	...	10'9	5'6	5'4	1'2	4'6
Small-pox . . . . .	...	'4	...	...	'4	2'7	...	...	'2	...	'4
Enteric Fever . . . . .	...	'8	...	'4	'2	...	...	...	'2	...	'2
Intermittent Fever . . . . .	...	1'5	9'7	5'4	4'9	1'6	'4	2'8	'2	13'6	3'7
Remittent Fever	9'4	3'4	5'6	5'4	2'5	4'3	5'9	...	2'5	...	3'9
Simple Continued Fever . . . . .	...	...	...	...	'4	...	...	...	...	...	'1
Tubercle of the lungs	16'3	24'7	5'6	10'8	8'5	11'8	6'7	2'8	7'4	16'6	11'1
Pneumonia	7'3	11'0	6'9	9'5	22'9	24'2	23'1	19'4	9'2	10'1	15'7
Other Respiratory Diseases	2'4	4'2	2'8	1'9	4'0	3'2	6'3	11'1	2'0	3'0	3'4
Dysentery	26'1	16'3	23'6	25'3	16'5	10'8	9'7	2'8	45'0	13'6	21'4
Diarrhœa	6'1	4'6	11'1	3'9	8'2	4'3	8'4	2'8	14'1	...	7'2
Hepatic Abscess . . . . .	...	1'1	...	'6	'1	...	...	...	'2	1'2	'3
Anæmia and Debility	6'1	1'5	11'1	4'3	8'7	1'1	2'5	19'4	3'0	...	5'2
Phagedæna, Slough and Gangrene	'4	...	...	...	...	...	...	...	...	...	...

* Including Ajmere and Quetta. For complete detail of diseases see Table LIII.
† Including Subsidiary Jails.
‡ Including Lalitpur and Sultanpur.

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TABLE XLI.

RATIOS of GEOGRAPHICAL GROUPS.

The ratios of admissions and deaths to strength are taken from Table XLII.

The actuals will be found in Table XLIII.

RATIO PER 1,000 OF THE AVERAGE STRENGTH.																	
					I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
					Burma Coast and Bay Islands.	Burma Inland.	Assam.	Bengal and Orissa.	Gangetic Plain and Chutia Nagpur.	Upper Sub-Himalayan.	N.-W. Frontier, Indus Valley and N. W. Rajputana.	S. E. Rajputana, Central India and Gujarat.	Decan.	Western Coast.	South India.	Hills.	
					India.*												
I.—AVERAGE ANNUAL STRENGTH					20,108	4,872	1,236	10,373	28,516	13,849	6,407	4,894	9,793	2,148	7,332	495	110,090
II.—CONSTANTLY SICK-RATE OF EACH MONTH—																	
January	41'3	23'9	52'7	39'0	54'2	48'1	41'0	31'7	39'1	25'7	28'4	27'1	42'7
February	37'1	26'4	49'1	49'6	54'1	41'0	25'8	27'2	42'2	30'5	30'2	30'6	41'7
March	38'6	26'2	50'0	55'6	58'3	39'8	29'0	29'7	35'9	32'6	29'4	21'4	42'9
April	39'3	37'0	55'3	44'7	52'5	38'2	31'6	33'5	33'6	28'8	26'5	36'8	40'8
May	42'1	33'6	64'7	40'0	47'1	30'9	30'8	33'2	31'1	27'5	24'0	46'9	38'1
June	52'7	40'8	62'7	42'0	48'4	31'3	28'5	36'0	30'7	34'6	24'9	51'3	41'1
July	50'1	38'2	58'6	45'3	51'2	35'3	36'1	41'4	35'7	46'4	26'2	36'2	43'4
August	47'6	38'4	59'4	45'6	52'8	38'1	35'9	41'7	41'4	54'0	28'5	38'5	44'6
September	42'2	28'3	66'9	48'7	50'5	37'1	28'9	41'1	45'8	41'1	29'5	33'6	42'6
October	38'9	25'2	58'4	47'1	44'2	34'8	27'0	40'8	47'8	43'6	27'0	34'8	39'7
November	38'1	23'6	41'9	44'7	42'3	31'8	27'0	38'3	37'4	40'8	28'0	36'2	37'1
December	35'1	22'2	35'7	41'1	42'0	32'8	28'0	39'2	33'7	42'9	26'0	24'3	35'8
OF THE YEAR					42'0	30'4	54'2	45'3	49'6	36'6	30'6	36'4	38'1	37'2	27'3	34'3	40'8
III.—ADMISSION-RATE OF THE YEAR—																	
Influenza	1'6	87'8	53'7	78'9	19'5	...	34'1	...	18'4	18'2	37'6
Cholera	1'2	2'4	3'8	3'4	...	...	...	4'4	22'3	...	...	2'3
Small-pox	2'1	1'1	2'8	2'0	...	1'4	...	...	1'1
Enteric Fever
Intermittent Fever	353'1	153'9	342'2	269'0	213'8	434'8	341'8	210'1	289'5	131'3	126'2	398'0	278'5
Remittent Fever	19'4	16'2	29'9	15'4	17'5	6'9	8'9	3'5	7'4	22'8	2'9	4'0	13'4
Simple Continued Fever	37'9	1'2	3'2	90'3	10'0	12'6	...	3'3	5'8	28'4	61'6	105'1	25'5
Tubercle of the lungs	7'3	7'2	5'7	8'1	6'3	4'8	5'2	11'9	6'1	7'0	15'1	4'0	7'2
Pneumonia	4'2	12'7	10'5	21'1	16'4	42'8	25'1	46'4	20'2	7'9	6'7	18'2	19'1
Other Respiratory Diseases	53'8	18'7	17'0	38'0	30'9	47'5	46'4	23'3	32'9	49'8	36'6	14'1	38'5
Dysentery	70'4	75'1	181'2	291'5	69'3	54'7	43'7	49'0	99'5	73'6	77'3	113'1	91'2
Diarrhoea	47'1	49'5	143'2	91'9	62'8	74'9	67'9	35'8	114'5	79'6	12'3	127'3	65'4
Spleen Diseases	3'8	1'8	13'8	8'0	12'5	11'2	10'5	11'4	10'5	9'2	4'6	12'1	8'9
Scurvy	1'6	...	...	1'6	...	4'7	7'9	1'4	...	1'0
Anæmia and Debility	20'4	14'4	22'7	13'6	64'3	17'0	18'6	20'8	30'2	14'4	5'0	14'1	30'1
Abscess, Ulcer, and Boil	144'6	49'9	78'5	39'5	93'8	147'1	171'4	63'1	96'7	51'7	44'1	105'1	101'8
ALL CAUSES					1,099'4	630'1	1,038'8	1248'1	887'3	1165'4	988'5	709'0	1,023'7	828'7	695'2	1169'7	982'5
IV.—DEATH-RATE OF THE YEAR—																	
Cholera	1'62	2'02	1'82	...	...	...	2'65	11'17	...	...	1'27
Small-pox
Enteric Fever
Intermittent Fever
Remittent Fever
Simple Continued Fever	1'39	...	...	...	...	...	...	...	...	...	...	...	...
Tubercle of the lungs
Pneumonia
Other Respiratory Diseases
Dysentery
Diarrhoea
Hepatic Abscess
Anæmia and Debility
Phagedæna, Slough and Gangrene
ALL CAUSES					20'54	19'50	56'63	28'63	30'16	19'78	22'48	26'56	50'34	46'55	21'82	24'24	27'69
V.—PERCENTAGE IN 100 ADMISSIONS—																	
Influenza
Cholera
Small-pox
Enteric Fever
Intermittent Fever
Remittent Fever
Simple Continued Fever
Tubercle of the lungs
Pneumonia
Other Respiratory Diseases
Dysentery
Diarrhoea
Spleen Diseases
Scurvy
Anæmia and Debility
Abscess, Ulcer, and Boil
VI.—PERCENTAGE IN 100 DEATHS—																	
Cholera
Small-pox
Enteric Fever
Intermittent Fever
Remittent Fever
Simple Continued Fever
Tubercle of the lungs
Pneumonia
Other Respiratory Diseases
Dysentery
Diarrhoea
Hepatic Abscess
Anæmia and Debility
Phagedæna, Slough and Gangrene

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TABLE XLII.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals See Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE, per 1,000 OF STRENGTH.										Average constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough and Gangrene.	ALL CAUSES.		
Akyab . . .	398 {	...	2'5 2'51	...	...	118'1	...	...	15'1 15'08	10'1 5'03	10'1 7'54	351'8 25'13	27'6	...	2'5	...	35'2	17'6	...	698'5 55'28	27'6
Kyaukpyu . .	120 {	...	...	...	...	125'0	...	...	...	...	...	116'7 8'33	...	...	...	...	...	33'3	...	275'0 8'33	8'3
Sandoway . .	59 {	...	...	...	...	50'8	...	...	...	...	33'9	50'8	16'9	...	...	...	...	84'7	...	423'7 16'95	16'9
Myanaung . .	86 {	...	...	11'6 11'63	...	104'7	...	...	...	...	...	151'2	11'6	...	...	...	...	139'5	...	593'0 11'63	23'3
Henzada . .	484 {	...	2'1 2'07	...	...	16'5	10'3	...	...	...	14'5 2'07	2'1	12'4	2'1	...	...	8'3	49'6	...	535'1 6'20	28'9
Bassein . . .	1,346 {	...	'7 '74	...	1'5 '74	68'4	...	81'0	8'2 3'71	3'7 '74	11'1	42'3 '74	13'4 '74	...	...	...	9'7 '74	60'2	...	505'2 13'37	24'5
Maubin . . .	448 {	...	11'2 4'46	...	...	...	4'5 2'23	20'1	2'2 2'23	6'7 6'70	8'9	31'3 6'70	15'6	...	...	...	...	46'9	...	274'6 29'02	15'6
Rangoon, Europeans.	24 {	...	...	...	...	541'7	...	208'3	...	...	41'7	83'3	83'3	...	...	...	...	83'3	...	1,708'3	83'3
Rangoon, Natives.	2,772 {	...	...	...	...	225'8	68'5 1'44	123'7	10'1 6'13	5'8 '72	39'7 1'44	59'5 1'08	47'3 1'44	'4 '36	'4	'4	5'4	185'4	...	1,233'4 20'20	46'2
Insein . . .	2,244 {	...	...	...	...	162'2	3'6	1'3	'4 '45	7'1 '89	44'6 '45	48'6 1'78	36'5	...	'9	...	1'8	156'7	...	898'0 6'24	45'0
Moulmein . .	786 {	...	...	...	...	7'6	11'5	39'4	34'4 19'08	6'4 1'27	28'0	118'3 7'63	35'6	...	1'3	...	2'5	155'2	...	591'6 35'62	43'3
Tavoy . . .	111 {	...	...	...	...	18'0	18'0	9'0	...	...	9'0	72'1	27'0	...	18'0	...	36'0	126'1	...	504'5 9'01	27'0
Mergui . . .	41 {	...	...	...	...	146'3	...	...	...	...	...	97'6 48'78	24'4	...	...	...	...	122'0	...	536'6 48'78	24'4
Toungoo . .	483 {	...	...	...	...	74'5	...	...	8'3 2'07	6'2 4'14	18'6	62'1 2'07	22'8	...	...	...	4'1	55'9	...	364'4 10'35	12'4
Shwegyin . .	186 {	...	...	...	...	247'3	5'4	...	...	5'4	26'9	198'9 5'38	118'3	5'4 5'38	...	...	10'8	349'5	...	1,424'7 16'13	80'6
Port Blair . .	10,520 {	...	...	...	...	553'9	16'5 2'19	24'8	6'5 3'80	3'0 1'71	76'2 '57	68'9 6'08	59'3 1'43	'1	6'6 '19	'4	33'4 1'43	157'1	'1 '10	1,349'7 23'29	46'1
GROUP I.— BURMA COAST AND BAY ISLANDS	20,108 {	...	'4 '25	'05	'1 '05	353'1	19'4 1'39	37'9	7'3 4'28	4'2 1'54	53'8 '75	70'4 4'77	47'1 '99	'2 '10	3'8 '10	'2	20'4 '80	144'6	...	1,099'4 20'54	42'0	
Thayetmyo . .	1,095 {	...	...	...	'9	139'7 '91	5'5 '91	...	6'4 4'57	15'5 3'65	21'0	11'9	13'7 '91	...	3'7	...	5'5	26'5	'9	657'5 15'53	30'1
Myingyan . .	1,142 {	...	5'3 2'63	'9	'9 '88	218'9 1'75	53'4	...	11'4 1'75	27'1 2'63	14'9	102'5 3'50	91'9 '88	'9 '88	...	...	22'8	51'7	...	829'2 16'64	39'4
Monywa . . .	120 {	...	...	...	...	...	...	16'7	...	...	...	16'7	...	...	...	...	...	83'3	...	266'7	16'7
Pakòkku . . .	73 {	...	...	...	...	27'4	...	...	...	...	...	...	13'7	...	...	...	...	41'1	...	82'2	4'3*
Yamethin . .	115 {	...	...	...	...	191'3	...	...	8'7	...	...	278'3	156'5	...	...	...	17'4	165'2	...	1,078'3	34'8
Taungdwingyi .	69 {	...	...	...	...	58'0	...	...	14'5 14'49	...	...	29'0	...	...	14'5	...	...	87'0	...	405'8 14'49	14'5
Pagan . . .	96 {	...	...	...	...	52'1	41'7	...	...	10'4 10'42	10'4	10'4	20'8	...	...	...	...	62'5	...	781'2 83'33	62'5
Minbu . . .	124 {	...	...	...	...	161'3	8'1	...	...	...	16'1	8'1	32'3	...	8'1	...	24'2 8'06	225'8	...	830'6 8'06	32'3
Magwe . . .	132 {	...	...	...	...	7'6	...	7'6	...	...	7'6	30'3	15'2	...	...	...	7'6	37'9	...	128'8	7'6
Mandalay . .	1,097 {	...	...	...	...	160'4	'9 '91	...	7'3 6'38	6'4 3'65	27'3 1'82	140'4 4'56	44'7 3'65	...	...	...	12'8 1'82	17'3	...	516'0 30'08	31'0
Shwebo . . .	172 {	...	...	...	...	133'7 5'81	...	11'6	...	...	29'1	23'3	58'1	...	...	...	23'3	98'8	...	540'7 5'81	23'3
Bhamo . . .	83 {	...	...	...	...	325'3	48'2 24'10	...	24'1 24'10	36'1 24'10	12'0	265'1 12'05	156'6 12'05	...	36'1	...	108'4	48'2	...	1,216'9 108'43	36'1
Meiktila . . .	158 {	...	...	...	...	12'7	12'7	...	12'7 6'33	12'7 6'33	12'7	38'0	6'3	...	...	...	19'0	19'0	...	208'9 12'66	19'0
Katha . . .	84 {	...	...	...	...	226'2	...	...	...	11'9 11'90	47'6	11'9	59'5	...	...	...	11'9	131'0	...	845'2 11'90	23'8
Kindat . . .	75 {	...	...	...	...	573'3	...	...	...	...	26'7	13'3	133'3	...	...	...	...	226'7	...	1,133'3	26'7
Prome . . .	237 {	...	...	...	...	12'7	...	4'2	4'2 4'22	...	12'7	25'3 4'22	25'3	...	...	...	4'2	29'5	...	291'1 12'66	16'9
GROUP II.— BURMA IN- LAND.	4,872 {	...	1'2 '62	'2	'4 '21	153'9 '82	16'2 '82	1'2	7'2 3'90	12'7 3'28	18'7 '41	75'1 2'26	49'5 1'44	'2 '21	1'8	...	14'4 '62	49'9	'2	630'1 19'50	30'4	

* Worked on the aggregates.

PRISONERS, 1896.

TABLE XLII—continued.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE, PER 1,000 OF STRENGTH.										Average constant-ly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough and Gangrene.	ALL CAUSES.		
Sylhet . .	529 {	...	...	...	...	313'8 13'23	11'3 3'78	...	3'8 3'78	5'7 3'78	13'2 1'89	113'4 13'23	117'2 7'56	1'9	13'2	...	30'2 7'56	79'4	...	862'0 62'38	66'2
Cachar . .	82 {	...	...	...	...	390'2	12'2	...	...	...	48'8 12'20	390'2 12'20	97'6 12'20	...	24'4	...	24'4	48'8	...	1,182'9 48'78	48'8
Gauhati . .	199 {	...	...	...	...	211'1	25'1	...	15'1 10'05	25'1 5'03	30'2	155'8 20'10	221'1	...	15'1 5'03	...	25'1 15'08	20'1	...	899'5 75'38	40'2
Tezpur . .	218 {	...	...	...	...	307'3	...	...	...	9'2 4'59	4'6	78'0	82'6 4'59	...	9'2	...	22'9	91'7	...	733'9 13'76	22'9
Sibsagar .	59 {	33'9	...	...	...	220'3	...	...	...	16'9 16'95	...	271'2 33'90	152'5 33'90	...	...	...	...	67'8	...	915'3 101'69	50'8
Dibrugarh .	63 {	...	...	...	...	1,190'5	79'4 15'87	...	15'9	15'9	31'7	904'8 15'87	333'3	...	31'7	...	...	31'7	...	2,984'1 31'75	79'4
Dhubri . .	18 {	...	111'1 111'11	...	...	666'7	944'4	...	55'6	...	...	222'2	277'8	...	...	...	...	...	...	2,388'9 111'11	55'6
Nowgong .	68 {	...	14'7	...	...	235'3	44'1 14'71	58'8	...	14'7	14'7	102'9 14'71	147'1	...	14'7	...	...	308'8	...	1,573'5 73'53	88'2
GROUP III.—ASSAM.	1,236 {	1'6	2'4 1'62	...	...	342'2 5'66	29'9 3'24	3'2	5'7 3'24	10'5 4'05	17'0 1'62	181'2 12'94	143'2 6'47	8	13'8 1'62	...	22'7 5'66	78'5	...	1,038'8 56'63	54'2
Presidency, Europeans.	45 {	66'7	22'2	...	...	66'7	88'9	88'9	...	22'2	22'2	244'4	66'7	...	...	...	22'2	...	...	933'3	22'2
Presidency, Natives.	1,166 {	78'9	9 86	...	9	106'3 86	27'4	69'5	15'4 2'57	6'9 1'72	6'9	187'8 4'29	48'0 86	9 86	...	1'7	3'4	17'2	...	707'5 13'72	25'7	
Alipore . .	1,592 {	...	1'3 1'26	...	...	51'5 1'26	6	326'0	8'8 7'54	18'2 3'14	64'7 63	246'9 3'77	69'7 63	...	3'1	1'3	8'8	68'5	...	1,550'9 22'61	49'0
Baraset . .	110 {	...	...	...	...	581'8	9'1	...	18'2 9'09	27'3 18'18	18'2	581'8 18'18	181'8	...	27'3	9'1	36'4	245'5	...	2,190'9 90'91	36'4
Jessore . .	289 {	159'2	3'5 3'46	...	...	304'5	20'8 3'46	72'7	...	34'6	34'6	844'3 6'92	58'8	...	6'9	...	13'8	69'2	...	1,889'3 27'68	62'3
Khulna . .	35 {	...	...	...	...	114'3	85'7	28'6	...	...	...	171'4	28'6	...	...	...	28'6	...	...	485'7	11'9
Krishnagar .	180 {	...	5'6 5'56	...	...	150'0	...	...	...	5'6	22'2	250'0 5'56	...	...	5'6	...	16'7	111'1	...	650'0 16'67	44'4
Murshidabad .	227 {	374'4	4'4 4'41	...	...	533'0	4'4	...	8'8 4'41	13'2 8'81	88'1	237'9 4'41	180'6	...	4'4	...	...	30'8	...	1,951'5 26'43	52'9
Hooghly . .	368 {	59'8	5'4	...	...	225'5 8'15	...	...	2'7 2'72	13'6 5'43	10'9	296'2 10'87	296'2	...	...	...	2'7	13'6	...	986'4 27'17	27'2
Burdwan . .	214 {	...	42'1 18'69	...	...	121'5	18'7	18'7	4'7	9'3 4'67	18'7	60'7 14'02	14'0	...	18'7	...	23'4 4'67	46'7	...	612'1 51'40	28'0
Malda . .	63 {	15'9	...	...	...	634'9	127'0 15'87	174'6	15'9 15'87	...	...	317'5	190'5	...	63'5	...	31'7 15'87	15'9	...	1,888'9 47'62	47'6
Purneah . .	147 {	...	...	...	...	571'4	27'2	...	...	47'6	54'4	503'4 27'21	170'1 13'61	...	20'4	...	40'8 13'61	34'0	...	1,619'0 61'22	81'6
Jalpaiguri .	83 {	...	...	...	...	180'7 36'14	...	...	12'0 12'05	12'0	36'1	168'7 12'05	48'2	...	12'0	...	12'0	24'1	...	662'7 60'24	24'1
Dinajpur . .	180 {	44'4	...	...	...	1,705'6	72'2	...	50'0 16'67	27'8 16'67	38'9	777'8 27'78	138'9	...	5'6	...	22'2 5'56	16'7	...	3,161'1 88'89	88'9
Rangpur . .	139 {	...	...	...	7'2 7'19	769'8	57'6 7'19	...	7'2 7'19	28'8 7'19	143'9	640'3 28'78	165'5	...	36'0	...	...	79'1	...	2,187'0 71'94	50'4
Rajshahi . .	690 {	13'0	2'9 2'90	...	...	278'3	29'0 2'90	...	13'0 5'80	8'7 2'90	33'3	18'8 5'80	31'9 1'45	...	4'3	...	...	7'2	...	688'4 23'19	24'6
Bogra . .	108 {	185'2	18'5 9'26	...	...	527'8	55'6	101'9	46'3 9'26	27'8	101'9	1,240'7	18'5	...	37'0	...	...	18'5	...	2,629'6 18'52	64'8
Mymensingh .	336 {	...	...	...	...	258'9 2'98	17'9 2'98	...	6'0	8'9 5'95	38'7	303'6 2'98	190'5	...	26'8	3'0	86'3 8'93	65'5	...	1,238'1 26'79	56'5
Pabna . .	125 {	...	...	...	...	144'0	64'0 8'00	144'0	8'0	16'0 8'00	40'0	136'0 16'00	72'0	...	...	24'0	8'0	64'0	...	832'0 40'00	32'0
Faridpur . .	360 {	33'3	...	...	...	86'1	19'4	161'1	5'6 2'78	16'7 5'56	55'6	338'9 2'78	52'8	...	50'0	5'6	5'6	11'1	...	1,002'8 13'85	41'7
Backergunge .	478 {	...	8'4 4'18	...	...	311'7	6'3 6'28	...	2'1	10'5 2'09	113'0	263'6 16'74	221'8 4'18	2'1 2'09	18'8	...	16'7 2'09	29'3	...	1,125'5 48'12	52'3
Noakhali . .	87 {	34'5	...	...	...	459'8	11'5	23'0	...	...	46'0	379'3	218'4	...	...	...	...	11'5	...	1,356'3	23'0
Chittagong .	203 {	...	...	...	...	344'8	...	...	4'9	4'9	...	128'1 4'93	118'2	...	...	...	4'9	44'3	...	753'7 4'93	14'8

* Worked on the aggregates.

JAILS.	Average annual strength.	1. ADMISSION-RATE.								2. DEATH-RATE, PER 1,000 OF STRENGTH.												Average constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.		
Tippera . . .	246 {	...	4'1 4'07	...	...	130'1 ...	12'2 ...	142'3 ...	20'3 12'20	12'2 4'07	8'1 ...	788'6 32'52	44'7 ...	...	4'1 ...	...	24'4 16'26	4'1 ...	...	1,227'6 77'24	65'0
Dacca . . .	1,068 {	398'9 ...	'9 '94	...	...	304'3 ...	1'9 ...	155'4 ...	'9 '94	79'6 3'75	9'4 ...	218'2 1'87	22'5 1'87	...	'9 ...	...	25'3 2'81	26'2 ...	...	1,463'5 14'04	70'2
Cuttack . . .	200 {	...	...	...	...	280'0 ...	5'0 ...	5'0 ...	10'0 5'00	5'0 ...	25'0 ...	220'0 ...	80'0 ...	...	...	30'0 ...	5'0 10'00	60'0 ...	...	890'0 15'00	30'0
Puri . . .	63 {	...	...	...	...	47'6 ...	...	...	...	63'5 ...	31'7 ...	...	31'7 15'9	15'9 15'87	...	...	15'9 ...	31'7 ...	...	333'3 15'87	15'9
Balasore . . .	105 {	28'6 ...	28'6 9'52	...	9'5 ...	295'2 ...	...	9'5 ...	...	19'0 ...	57'1 ...	238'1 ...	304'8 ...	...	...	...	...	38'1 ...	...	1,076'2 9'52	28'6
Midnapore . . .	888 {	174'6 2'25	1'1 1'13	...	...	304'1 1'13	13'5 3'38	...	3'4 ...	12'4 3'38	16'9 4'50	323'2 11'26	49'5 2'25	...	...	...	1'1 ...	23'6 ...	...	1,085'6 34'91	55'2
Bankura . . .	294 {	44'2 ...	23'8 6'80	...	...	432'0 ...	...	...	3'4 3'40	23'8 10'20	71'4 ...	459'2 20'41	326'5 ...	...	6'8 ...	...	3'4 ...	71'4 ...	...	1,870'7 44'22	37'4
Suri . . .	214 {	37'4 ...	...	4'7 ...	...	546'7 4'67	4'7 4'67	...	4'7 ...	4'7 4'67	28'0 4'67	56'1 4'67	51'4 9'35	...	28'0 ...	...	28'0 ...	70'1 ...	...	1,163'6 42'06	32'7
Naya Dumka . . .	70 {	71'4 ...	...	...	...	142'9 ...	71'4 ...	57'1 ...	...	...	42'9 ...	371'4 ...	28'6 ...	...	...	...	100'0 ...	14'3 ...	...	1,128'6 14'29	42'9
GROUP IV.— BENGAL AND ORISSA.	10,373 {	87'8 '19	3'8 2'02	'1 ...	'3 '10	269'0 1'16	15'4 1'35	90'3 ...	8'1 3'47	21'1 3'66	38'0 '58	291'5 7'91	91'9 1'25	'3 '29	8'0 ...	1'6 ...	13'6 1'74	39'5 ...	...	1,248'1 28'63	45'3
Monghyr . . .	234 {	59'8 ...	...	...	...	192'3 ...	...	...	4'3 ...	...	25'6 ...	196'6 ...	504'3 4'27	...	12'8 ...	...	4'3 ...	64'1 ...	...	1,380'3 17'09	51'3
Bhagalpur . . .	1,206 {	80'4 '83	...	...	...	87'9 '83	...	51'4 ...	2'5 '83	7'5 1'66	40'6 ...	28'2 2'49	43'1 ...	...	3'3 ...	...	6'6 ...	20'7 ...	...	478'4 8'29	18'2
Purulia . . .	140 {	...	7'1 7'14	...	...	135'7 ...	...	...	...	...	21'4 ...	142'9 7'14	85'7 ...	...	...	...	7'1 7'14	...	...	421'4 21'43	7'1
Chaibassa . . .	95 {	168'4 10'53	...	...	10'5 10'53	326'3 10'53	31'6 ...	...	10'5 ...	...	42'1 ...	431'6 10'53	252'6 10'53	...	73'7 ...	...	52'6 ...	21'1 ...	...	1,705'3 52'63	63'2
Ranchi . . .	198 {	126'3 ...	...	...	...	171'7 ...	10'1 10'10	...	5'1 ...	5'1 ...	40'4 5'05	171'7 30'30	126'3 ...	...	...	...	25'3 ...	65'7 ...	...	883'8 45'45	20'2
Palamau . . .	58 {	241'4 ...	...	...	...	431'0 34'48	51'7 34'48	...	17'2 17'24	...	...	86'2 17'24	34'5 ...	...	189'7 34'48	...	...	...	...	1,293'1 137'93	34'5
Hazaribagh . . .	934 {	118'8 5'35	...	...	...	41'8 3'21	5'4 1'07	122'1 ...	11'8 7'49	7'5 1'07	20'3 ...	20'3 4'28	3'2 ...	...	...	...	1'1 1'07	19'3 ...	...	433'6 27'84	22'5
Gaya . . .	443 {	187'4 ...	6'8 6'77	...	...	562'1 ...	22'6 ...	15'8 ...	...	4'5 ...	47'4 2'26	144'5 ...	90'3 ...	...	11'3 ...	...	6'8 ...	119'6 ...	...	1,555'3 11'29	40'6
Patna . . .	278 {	...	129'5 43'17	3'6 ...	...	384'9 ...	36'0 10'79	...	3'6 3'60	3'6 ...	18'0 ...	255'4 10'79	241'0 ...	...	28'8 ...	...	3'6 ...	61'2 ...	...	1,431'7 79'14	43'2
Arrah . . .	248 {	...	4'0 4'03	4'0 ...	...	431'5 4'03	...	4'0 ...	4'0 ...	8'1 4'03	8'1 ...	133'1 ...	112'9 4'03	...	8'1 4'03	...	...	56'5 ...	...	907'3 28'23	28'2
Buxar . . .	1,097 {	...	...	...	...	328'2 3'65	...	...	9'1 4'56	2'7 2'73	11'9 ...	38'3 2'73	50'1 ...	...	'9 ...	...	1'8 '91	56'5 ...	...	727'4 19'14	21'0
Champarun . . .	312 {	73'7 ...	...	...	...	381'4 6'41	3'2 ...	...	12'8 ...	3'2 3'21	35'3 ...	384'6 25'64	346'2 ...	...	28'8 3'21	...	44'9 ...	89'7 ...	...	1,602'6 54'49	48'1
Muzaffarpur . . .	322 {	205'0 ...	...	...	...	177'0 ...	12'4 3'11	3'1 ...	...	...	40'4 3'11	93'2 ...	65'2 ...	...	...	...	9'3 ...	28'0 ...	...	807'5 15'53	24'8
Darbhanga . . .	284 {	123'2 ...	105'6 84'51	...	...	144'4 ...	14'1 7'04	...	7'0 3'52	10'6 ...	3'5 ...	482'4 ...	281'7 10'56	...	...	7'0 ...	7'0 ...	59'9 ...	...	1,397'9 109'15	42'3
Chapra . . .	231 {	...	17'3 ...	...	...	398'3 ...	8'7 4'33	...	...	4'3 ...	129'9 ...	398'3 43'29	281'4 ...	...	43'3 4'33	...	43'3 ...	82'3 ...	...	2,047'6 56'28	82'3
Ghazipur . . .	544 {	57'0 1'84	...	1'8 ...	...	66'2 ...	3'7 ...	...	1'8 ...	25'7 5'51	46'0 5'51	12'9 1'84	44'1 1'84	...	7'4 ...	...	101'1 7'35	93'8 ...	...	702'2 27'57	51'5
Benares, Central . . .	2,327 {	58'4 1'29	1'3 '43	'4 ...	...	138'4 1'29	...	'4 ...	6'4 6'45	5'2 1'72	12'9 '86	19'3 5'59	10'7 ...	...	1'3 ...	...	52'9 4'30	83'8 ...	...	538'0 24'50	76'9
„ District . . .	506 {	65'2 1'98	...	15'8 ...	...	191'7 1'98	5'9 1'98	5'9 ...	5'9 1'98	19'8 3'95	5'9 3'95	81'0 13'83	43'5 1'98	...	15'8 1'98	...	160'1 3'95	85'0 ...	...	889'3 41'50	120'6
Chunar . . .	1,466 {	...	...	...	...	347'2 10'91	145'3 8'87	'7 ...	16'4 5'46	26'6 17'74	52'5 2'05	45'0 13'64	98'2 14'32	...	6'8 ...	...	125'5 24'56	135'7 ...	...	1,274'2 105'73	65'5
Mirzapur . . .	280 {	17'9 ...	10'7 3'57	7'1 ...	...	310'7 ...	46'4 ...	...	3'6 3'57	146'4 25'00	75'0 ...	60'7 10'71	67'9 10'71	...	39'3 ...	...	139'3 ...	217'9 ...	3'6 ...	1,632'1 64'29	71'4
Azamgarh . . .	476 {	...	...	...	...	296'2 2'10	4'2 ...	...	8'4 ...	4'2 ...	35'7 2'10	77'7 6'30	58'8 ...	...	4'2 ...	...	338'2 18'91	155'5 ...	...	1,445'4 48'32	121'8
Jaunpur . . .	344 {	2'9 ...	...	11'6 ...	...	244'2 ...	2'9 ...	2'9 ...	2'9 ...	11'6 2'91	11'6 2'91	58'1 2'91	55'2 5'81	...	2'9 ...	...	61'0 2'91	81'4 ...	...	671'5 23'26	40'7

PRISONERS, 1896.

TABLE XLII—continued.

RATIOS of FAILS, GROUPS and ADMINISTRATIONS.

For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE, PER 1,000 OF STRENGTH.										Average constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.		
Gorakhpur . . .	474 {	69'6 4'22	...	...	...	175'1 ...	...	...	10'5 4'22	23'2 8'44	50'6 ...	263'7 12'66	16'9 ...	...	156'1 ...	...	265'8 ...	120'3 ...	...	1,605'5 33'76	116'0
Basti . . .	498 {	...	...	...	...	443'8 ...	...	...	2'0 ...	34'1 12'05	34'1 2'01	142'6 14'06	90'4 8'03	...	20'1 2'01	...	98'4 2'01	142'6 ...	...	1,321'3 44'18	66'3
Gonda . . .	637 {	...	...	3'1 ...	...	372'1 9'42	3'1 1'57	...	1'6 1'57	14'1 1'57	17'3 ...	65'9 12'56	29'8 1'57	...	...	...	65'9 4'71	72'2 ...	...	832'0 40'82	48'7
Bahraich . . .	453 {	77'3 2'21	...	...	...	534'2 4'42	...	...	13'2 4'42	15'5 6'62	13'2 ...	185'4 6'62	28'7 6'62	...	15'5 ...	...	114'8 2'21	132'5 ...	...	1,434'9 37'53	92'7
Fyzabad . . .	736 {	74'7 ...	6'8 4'08	12'2 ...	...	332'9 1'36	1'4 ...	1'4 ...	...	20'4 9'51	34'0 ...	47'6 8'15	61'1 1'36	...	4'1 1'36	1'4 ...	66'6 ...	153'5 ...	...	1,186'1 35'33	55'7
Sultanpur . . .	106 {	...	...	18'9 ...	...	28'3 ...	9'4 ...	9'4 ...	...	...	9'4 ...	...	18'9 ...	...	9'4 ...	...	160'4 ...	9'4 ...	...	547'2 9'43	28'3
Rai Bareli . . .	615 {	...	1'6 1'63	1'6 ...	...	144'7 ...	1'6 ...	...	3'3 3'25	4'9 ...	17'9 ...	9'8 ...	19'5 1'63	...	8'1 ...	...	191'9 3'25	94'3 1'63	...	611'4 26'02	35'8
Partabgarh . . .	277 {	3'6 ...	...	...	...	249'1 ...	...	...	...	3'6 3'61	14'4 ...	32'5 ...	18'1 ...	...	3'6 ...	...	32'5 3'61	68'6 ...	...	707'6 7'22	21'7
Hardoi . . .	474 {	88'6 ...	...	4'2 ...	...	35'9 ...	242'6 2'11	65'4 4'22	2'1 ...	...	8'4 ...	29'5 2'11	78'1 8'44	...	...	...	8'4 ...	80'2 ...	...	928'3 21'10	38'0
Kheri . . .	366 {	...	...	...	...	341'5 ...	2'7 ...	...	...	41'0 2'73	19'1 ...	150'3 13'66	76'5 5'46	...	19'1 ...	5'5 ...	136'6 ...	142'1 ...	...	1,199'5 21'86	51'9
Lucknow, Central	1,689 {	85'8 1'78	...	1'2 ...	...	74'0 ...	24'9 5'59	2'4 ...	3'6 2'37	5'9 5'59	18'9 1'78	17'2 5'59	13'0 5'59	...	5'9 ...	...	15'4 5'59	40'3 ...	...	419'8 11'25	31'4
„ District	668 {	166'2 2'99	...	...	...	142'2 ...	16'5 ...	...	6'0 2'99	15'0 1'50	15'0 ...	41'9 ...	24'0 ...	...	3'0 ...	...	41'9 1'50	106'3 1'50	...	803'9 13'47	50'9
Sitapur . . .	797 {	45'2 5'02	...	...	...	59'0 ...	10'0 ...	...	...	16'3 3'76	2'5 ...	27'6 1'25	32'6 ...	...	2'5 ...	...	80'3 1'25	57'7 ...	...	469'3 11'29	26'3
Barabanki . . .	382 {	15'7 ...	...	...	...	49'7 ...	...	5'2 ...	5'2 ...	7'9 2'62	13'1 ...	7'9 ...	2'6 ...	...	...	...	10'5 ...	41'9 ...	...	293'2 5'24	18'3
Unao . . .	309 {	3'2 ...	...	...	...	110'0 ...	3'2 ...	77'7 ...	6'5 ...	16'2 3'24	93'9 ...	32'4 ...	80'9 3'24	...	9'7 ...	3'2 ...	84'1 ...	258'9 ...	...	1,488'7 12'94	55'0
Hamirpur . . .	215 {	...	...	...	...	353'5 ...	...	...	...	37'2 13'95	251'2 ...	204'7 4'65	32'6 ...	...	130'2 ...	...	139'5 ...	288'4 ...	...	1,944'2 27'91	93'0
Orai . . .	179 {	156'4 11'17	27'9 16'76	5'6 ...	...	843'6 ...	5'6 ...	50'3 ...	33'5 5'59	5'6 5'59	44'7 5'59	106'1 11'17	78'2 ...	...	...	...	11'2 ...	95'0 ...	...	1,703'9 67'04	39'1
Fatehgarh, Central.	2,162 {	84'2 ...	...	...	3'2 93	144'3 46	4'6 ...	...	12'0 2'31	10'6 93	24'1 46	80'9 9'25	99'9 1'39	...	5'6 ...	...	15'7 ...	107'8 ...	...	815'9 20'35	51'8
„ District	395 {	...	...	...	...	200'0 ...	17'7 ...	...	22'8 2'53	22'8 10'13	149'4 2'53	121'5 ...	151'9 2'53	...	2'5 ...	...	22'8 ...	184'8 ...	...	1,131'6 17'72	35'4
Cawnpore . . .	383 {	...	...	2'6 ...	...	26'1 ...	2'6 ...	...	2'6 ...	18'3 7'83	31'3 7'83	28'7 2'61	31'3 2'61	...	5'2 ...	...	430'8 2'61	104'4 ...	...	921'7 28'72	62'7
Fatehpur . . .	412 {	31'6 ...	...	...	...	58'3 ...	2'4 2'43	48'5 ...	4'9 ...	17'0 ...	29'1 ...	58'3 2'43	12'1 ...	...	34'0 ...	...	29'1 ...	51'0 ...	...	585'0 12'14	29'1
Banda . . .	292 {	95'9 6'85	...	...	...	445'2 3'42	3'4 ...	...	23'8 6'85	30'8 10'27	85'6 3'42	167'8 17'12	75'3 3'42	...	102'7 ...	...	30'8 ...	263'7 ...	...	1,828'8 61'64	78'8
Allahabad, Central.	2,287 {	30'6 1'31	...	7'4 ...	...	165'3 44	...	...	9 44	20'6 4'37	15'3 44	13'1 2'62	21'4 1'75	...	11'8 ...	...	23'6 2'19	94'9 ...	...	585'5 16'18	25'8
„ District.	699 {	77'3 ...	5'7 2'86	5'7 1'43	...	400'6 ...	1'4 ...	4'3 ...	4'3 1'43	108'7 35'77	65'8 2'86	12'9 1'43	114'4 ...	...	14'3 ...	...	41'5 ...	100'1 ...	...	1,372'0 50'07	88'7
Etawah . . .	253 {	...	...	4'0 ...	...	138'3 ...	4'0 ...	...	7'9 3'95	11'9 ...	39'5 ...	23'7 ...	63'2 ...	...	7'9 ...	...	59'3 ...	110'7 ...	...	786'6 11'86	31'6
Mainpuri . . .	365 {	2'7 ...	...	...	...	265'8 ...	2'7 ...	...	2'7 2'74	8'2 ...	2'7 ...	13'7 ...	5'5 2'74	...	5'5 ...	...	5'5 ...	106'8 ...	...	646'6 5'48	19'2
Etah . . .	370 {	...	...	...	...	448'6 ...	35'1 8'11	...	13'5 8'11	10'8 2'70	45'9 ...	5'4 2'70	62'2 ...	...	10'8 ...	...	237'8 ...	162'2 ...	...	1,327'0 27'03	70'3
GROUP V.— GANGETIC PLAIN AND CHUTIA NAGPUR.	28,516 {	53'7 1'09	3'4 1'82	2'1 '04	3 '12	213'8 1'65	17'5 1'16	10'0 '07	6'3 2'45	16'4 4'66	30'9 1'02	69'3 5'75	62'8 2'21	...	12'5 '28	2 ...	64'3 2'88	93'8 '07	...	887'3 30'16	49'6	
Aligarh . . .	405 {	9'9 ...	...	...	...	429'6 ...	51'9 2'47	17'3 ...	7'4 ...	34'6 2'47	214'8 ...	113'6 ...	158'0 ...	...	9'9 ...	...	19'8 ...	167'9 ...	...	1,748'2 17'28	39'1
Bulandshahr . . .	274 {	32'8 ...	...	...	...	357'7 ...	7'3 ...	7'3 ...	3'6 3'65	10'9 ...	87'6 ...	47'4 ...	94'9 ...	...	18'2 ...	...	18'2 ...	142'3 ...	...	1,102'2 3'65	32'8
Shahjahanpur . . .	420 {	116'7 ...	...	...	...	266'7 2'38	2'4 ...	...	16'7 4'76	40'5 19'05	66'7 11'90	45'2 2'38	47'6 2'38	...	16'7 ...	...	90'5 ...	69'0 ...	...	995'2 54'76	45'2

JAILS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE, PER 1,000 OF STRENGTH.										Average constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, and Slough, and Gangrene.	ALL CAUSES.		
Bareilly, Central	2,339	167'2 ...	...	'9 ...	...	361'3 86	...	...	3'4 2'99	63'7 9'83	3'4 43	12'0 2'14	9'0 ...	...	...	...	12'4 43	137'7 ...	...	898'2 18'38	44'0
„ District	991	100'9 ...	...	5'0 ...	...	239'2 4'04	...	74'7 1'01	8'1 2'02	157'4 13'12	54'5 1'01	35'3 2'02	106'0 8'07	...	34'3 ...	...	40'4 ...	74'7 ...	...	1,138'2 37'34	54'5
Budaon . .	400	...	...	...	...	205'0 ...	62'5 ...	...	5'0 2'50	35'0 2'50	15'0 2'50	42'5 ...	85'0 ...	...	2'5 ...	...	20'0 ...	50'0 ...	...	735'0 10'00	17'5
Saharanpur .	287	...	3'5 3'48	...	...	536'6 6'97	7'0 ...	...	...	135'9 6'97	41'8 ...	62'7 3'48	149'8 6'97	...	34'8 ...	...	...	202'1 3'48	...	1,453'0 38'33	55'7
Bijnor . .	274	105'8 ...	...	...	...	65'7 3'65	...	...	7'3 ...	36'5 3'65	18'2 ...	21'9 7'30	10'9 3'65	...	32'8 ...	...	14'6 ...	40'1 ...	...	529'2 21'90	25'5
Dehra Dun .	83	...	48'2 48'19	...	...	361'4 ...	12'0 ...	...	...	12'0 ...	36'1 ...	60'2 ...	241'0 12'05	...	12'0 ...	...	12'0 ...	84'3 ...	...	1,132'5 60'24	48'2
Muzaffarnagar .	188	186'2 10'64	...	...	...	622'3 ...	...	...	...	63'8 10'64	21'3 ...	117'0 ...	74'5 ...	...	10'6 ...	...	21'3 ...	138'3 ...	...	1,516'0 31'91	63'8
Moradabad .	413	41'2 4'84	...	2'4 2'42	...	314'8 ...	9'7 ...	82'3 ...	4'8 ...	38'7 9'69	48'4 ...	87'2 4'84	72'6 2'42	...	31'5 ...	...	79'9 ...	106'5 ...	...	1,314'8 41'16	79'9
Meerut . .	648	71'0 3'09	...	...	1'5 ...	310'2 ...	6'2 ...	10'8 ...	4'6 ...	15'4 1'54	40'1 1'54	17'0 ...	72'5 1'54	1'5 1'54	23'1 ...	...	13'9 ...	40'1 ...	...	824'1 9'26	27'8
Delhi . .	459	...	...	4'4 2'18	...	775'6 ...	4'4 ...	10'9 ...	4'4 2'18	24'0 2'18	54'5 ...	54'5 ...	100'2 ...	...	2'2 ...	...	6'5 ...	191'7 ...	...	1,505'4 17'43	28'3
Rohtak . .	162	...	...	...	...	851'9 ...	6'2 ...	...	...	37'0 6'17	...	86'4 ...	104'9 ...	...	...	...	6'2 ...	246'9 ...	...	1,598'8 18'52	24'7
Hissar . .	198	...	...	5'1 ...	...	136'4 ...	...	5'05 ...	5'1 ...	10'1 10'10	15'2 ...	...	40'4 ...	...	...	...	20'2 ...	96'0 ...	...	621'2 15'15	25'3
Karnal . .	164	...	...	...	...	231'7 ...	...	...	...	36'6 24'39	42'7 6'10	128'0 12'20	36'6 ...	...	24'4 ...	...	6'1 ...	91'5 ...	...	817'1 42'68	18'3
Umballa . .	588	18'7 ...	...	3'4 1'70	...	386'1 ...	3'4 1'70	...	3'4 ...	25'5 1'70	57'8 3'40	83'3 5'10	115'6 1'70	...	11'9 1'70	...	8'5 ...	120'7 ...	...	1,071'4 18'71	28'9
Ludhiana .	227	8'8 ...	...	...	...	215'9 ...	...	171'8 ...	...	...	...	17'6 4'41	35'2 ...	...	4'4 ...	...	8'8 ...	149'8 ...	...	925'1 4'41	22'0
Hoshiarpur .	50	...	...	...	...	680'0 ...	...	...	20'0 ...	60'0 ...	40'0 ...	20'0 ...	...	...	...	...	...	160'0 ...	...	1,520'0 ...	40'0
Jullundur .	239	...	...	...	...	213'4 ...	29'3 ...	8'4 ...	4'2 ...	16'7 ...	41'8 ...	41'8 ...	20'9 4'18	...	...	4'2 ...	8'4 ...	66'9 ...	...	619'2 4'18	12'6
Ferozepore .	391	48'6 ...	...	2'6 2'56	...	40'9 ...	5'1 ...	...	...	33'2 7'67	40'9 2'56	30'7 ...	7'7 ...	...	5'1 ...	...	...	43'5 ...	...	419'4 20'46	15'3
Amritsar . .	171	...	...	...	...	801'2 ...	17'5 ...	...	...	5'8 5'85	29'2 ...	76'0 ...	117'0 ...	...	...	...	52'6 ...	280'7 ...	...	1,590'6 5'85	35'1
Lahore, Central	1,285	238'9 ...	...	...	...	723'0 ...	1'6 ...	...	9'3 3'89	26'5 9'34	111'3 ...	91'1 1'56	147'9 1'56	...	16'3 ...	8 ...	11'7 ...	336'2 ...	...	2,085'6 17'12	38'9
„ District	509	25'5 ...	...	2'0 1'96	...	318'3 ...	2'0 ...	...	3'9 ...	19'6 3'93	21'6 ...	64'8 5'89	17'7 ...	...	2'0 ...	...	3'9 ...	163'1 ...	...	825'1 15'72	33'4
„ Female	157	6'4 ...	...	...	...	433'1 ...	19'1 6'37	...	6'4 6'37	12'7 6'37	38'2 ...	133'8 19'11	25'5 6'37	...	...	...	...	76'4 ...	...	1,101'9 50'96	31'8
Sialkot . .	300	...	...	...	...	186'7 ...	3'3 ...	...	3'3 3'33	10'0 ...	16'7 ...	90'0 ...	103'3 3'33	...	...	...	...	173'3 ...	...	760'0 10'00	16'7
Gurdaspur .	186	10'8 ...	...	...	...	96'8 ...	...	...	...	10'8 5'38	10'8 ...	32'3 ...	16'1 5'38	...	...	...	5'4 ...	64'5 ...	...	344'1 10'75	10'8
Gujranwala .	331	...	...	...	...	432'0 ...	...	...	6'0 3'02	15'1 ...	39'3 ...	48'3 ...	93'7 ...	...	12'1 ...	...	15'1 ...	139'0 ...	...	960'7 6'04	33'2
Chinawan .	676	56'2 1'48	...	...	...	636'1 1'48	13'3 2'96	...	4'4 4'44	16'3 1'48	88'8 ...	28'1 ...	22'2 ...	...	...	...	...	51'8 ...	...	974'9 13'31	32'5
Gujrat . .	86	...	...	...	11'6 ...	139'5 ...	34'9 ...	...	11'6 11'63	58'1 ...	46'5 ...	93'0 ...	34'9 ...	...	...	...	34'9 ...	93'0 ...	...	802'3 23'26	23'3
Jhelum . .	257	...	...	...	...	766'5 ...	...	...	...	3'9 ...	27'2 ...	42'8 ...	77'8 ...	...	...	...	...	144'0 ...	...	1,202'3 ...	19'5
Rawalpindi .	691	27'5 4'34	...	...	...	1,065'1 ...	...	7'2 ...	1'4 1'45	26'0 5'79	40'5 ...	136'0 ...	178'0 ...	...	18'8 ...	...	5'8 ...	347'3 ...	...	2,234'4 13'02	37'6
GROUP VI.— UPPER SUB- HIMALAYAN.	13,849	78'9 72	4 36	1'1 36	1 ...	434'8 79	6'9 43	12'6 07	4'8 1'95	42'8 6'50	47'5 94	54'7 1'95	74'9 1'59	1 07	11'2 07	1 ...	17'0 14	147'1 ...	...	1,165'4 19'78	36'6

TABLE XLII—continued.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION RATE.						2. DEATH-RATE, PER 1,000 OF STRENGTH.														Average constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.		
Shahpur . .	234 {	4'3	...	260'7	42'7	47'0	38'5	98'3	...	4'3	...	8'5	94'0	...	765'0	} 17'1	
Montgomery .	1,304 {	62'1 6'13	...	...	...	291'4	5'4 '77	...	3'8 3'07	3'8 '77	40'6 '77	41'4 '2'30	85'9	...	9'2	...	16'9 '77	264'6	'8	1,008'4 23'01
Jhang . .	226 {	500'0	26'5	48'7	190'3 4'42	243'4	247'8	...	1,579'6 4'42	} 26'5	
Mooltan, Central	895 {	...	...	...	...	463'7	3'4	...	14'5 3'35	10'1 3'35	65'9 1'12	53'6 1'12	118'4	...	35'8	2'2	55'9 1'12	242'5	...	1,412'3 17'88
„ District	599 {	3'3 1'67	...	155'3	1'7	13'4 1'67	15'0	11'7	5'0	...	3'3	...	1'7	46'7	...	362'3 13'36	} 11'7	
Dera Ghazi Khan	338 {	53'3	...	...	...	500'0	3'0	...	5'9	53'3 11'83	79'9	8'9	65'1	...	3'0	3'0	17'8	295'9	...	1,301'8 14'79
Dera Ismail Khan	385 {	23'4	400'0 2'60	75'3 2'60	...	5'2	5'2	18'2	70'1 2'60	26'0 2'60	...	2'6	142'9	...	1,088'3 20'78	} 28'6	
Bannu . .	109 {	...	...	...	...	431'2	9'2	...	...	...	27'5	45'9	18'3	...	9'2	...	...	311'9	...	1,229'4 18'35
Kohat . .	96 {	697'9	20'8	10'4	...	31'2	20'8	20'8	62'5	...	10'4	...	31'2	354'2	...	1,416'7	} 31'2	
Peshawar . .	404 {	2'5	...	...	...	1,108'9	5'0 2'48	...	7'4	7'4	49'5	79'2	59'4	...	7'4	2'5	9'9	289'6	...	1,965'3 7'43
Kurrachee .	293 {	6'8	...	221'8	6'8 3'41	...	13'7	23'9 6'83	44'4 3'41	58'0	51'2	...	20'5	3'4	3'4	58'0	3'4	730'4 23'89	} 41'0	
Hyderabad .	673 {	...	...	...	...	63'9	...	...	3'0	40'1 8'92	43'1 1'49	19'3 1'49	37'1 1'49	...	1'5	1'5	16'3 1'49	34'2	...	432'4 23'77
Sind Gang .	310 {	51'6 19'35	235'5	16'1 3'23	3'2	3'2	71'0 12'90	96'8	25'8	74'2	12'9	48'4	32'3	...	848'4 35'48	} 25'8	
Shikarpur .	541 {	...	...	24'0	...	114'6	7'4 1'85	1'8	1'8	75'8 38'82	42'5 5'55	22'2	16'6	...	11'1	...	7'4	73'9	...	573'0 68'39
GROUP VII.— N. W. FRONTIER, INDUS VALLEY AND N. W. RAJ- PUTANA.	6,407 {	19'5 2'19	...	2'8 '16	...	341'8 '16	8'9 '94	'5	5'2 1'09	25'1 6'56	46'4 1'09	43'7 1'09	67'9 '31	...	10'5	1'6	18'6 '47	171'4	'3	988'5 22'48	} 30'6	
Muttra . .	270 {	...	...	3'7	...	155'6 3'70	14'8 3'70	...	3'7 3'70	22'2 3'70	22'2	55'6 14'81	37'0	...	25'9	3'7	55'6	77'8	...	866'7 33'33
Agra, Central .	2,273 {	1'3 '88	...	184'8	...	'4 '44	4'4 3'96	59'8 13'20	26'4 '44	37'0 3'52	27'3 '88	...	8'8	...	25'5 '44	58'1	...	683'7 27'72	} 40'9	
„ District .	680 {	...	...	2'9	...	167'6	...	...	2'9 1'47	41'2 4'41	22'1 1'47	20'6 2'94	30'9 1'47	...	7'4	...	23'5	91'2	...	539'7 17'65
Jhansi . .	243 {	4'1	4'1	8'2	...	255'1 4'12	8'2	...	12'3 8'23	24'7 4'12	16'5 4'12	28'8 8'23	74'1 4'12	...	12'3	...	12'3	53'5	...	724'3 41'15	} 32'9	
Lalitpur . .	118 {	8'5	...	8'5	...	627'1 8'47	42'4 8'47	25'4	...	...	...	144'1 25'42	118'6 8'47	...	42'4	...	8'5	67'8	...	1,305'1 84'75
Ajmere . .	302 {	43'0	6'6 3'31	19'9	16'6	46'4	...	221'9 13'25	} 13'2	
Ahmedabad .	934 {	...	...	1'1	...	292'3	5'4 1'07	11'8	45'0 9'64	51'4 7'49	23'6	103'9	47'1	...	15'0	1'1	8'6	61'0	...	919'7 21'41
Rajkot . .	74 {	405'4	13'5	13'5	...	13'5 13'51	13'5	13'5	81'1	...	27'0	...	13'5	27'0	...	797'3 27'03	} 27'0	
GROUP VIII.— S. E. RAJPU- TANA, CEN- TRAL INDIA AND GUJARAT.	4,894 {	'4	'2	2'0	...	210'1	3'5	3'3	11'9	46'4	23'3	49'0	35'8	...	11'4	'4	20'8	63'1	...	709'0 26'56		

JAILS.	Average annual strength.	1. ADMISSION-RATE.							2. DEATH-RATE, PER 1,000 OF STRENGTH.													Average constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.		
Nasik . .	43 {	...	...	...	...	...	...	...	...	46'5	...	23'3	...	...	...	...	46'5	46'5	...	255'8	} 10'0*	
Dhulia . .	246 {	...	8'1 8'13	...	...	187'0	...	...	4'1	8'1 8'13	...	77'2	44'7	...	12'2	...	...	20'3	...	443'1 16'26		} 16'3
Yerrowda .	1,474 {	...	7	...	...	393'5 68	7 68	7	2'0 68	6'1 2'04	55'0 2'04	54'3 68	78'7 1'36	7	10'9	...	23'1 2'04	162'8	2'0	1,288'3 16'28	} 55'0	
Dharwar . .	367 {	2'7 2'72	2'7	...	...	198'9	2'7	2'7	...	21'8 2'72	32'7	62'7	73'6 2'72	...	...	...	27'2	19'1	...	615'8 19'07		} 35'4
Bijapur District.	292 {	51'4	...	...	...	527'4	3'4	...	...	20'5 10'27	17'1	58'2 3'42	17'1	...	6'8	...	...	34'2	...	1,024'0 20'55	} 27'4	
Deccan Gang .	356 {	...	...	...	...	342'7	39'3 14'04	11'2	8'4 5'62	28'1 5'62	70'2	73'0 2'81	106'7 2'81	...	8'4	5'6	33'7	84'3	...	1,182'6 33'71		} 36'5
Amraoti . .	511 {	41'1	...	2'0	...	113'5	2'0	...	...	7'8 1'96	11'7 1'96	9'8 1'96	21'5 1'96	...	...	...	19'6 1'96	23'5	...	385'5 13'70	} 9'8	
Akola . .	544 {	...	...	...	...	99'3	22'1	3'7	...	23'9 1'84	14'7 3'68	22'1	11'0	...	1'8	9'2 3'68	33'1 11'03	51'5 1'84	...	468'8 25'74		} 18'4
Ellichpur . .	42 {	...	...	...	...	1238'1	...	...	...	...	23'8	47'6	...	...	...	...	47'6	166'7	...	1,666'7 23'81	} 23'8	
Buldana . .	70 {	...	...	...	...	342'9	...	28'6	...	...	14'3	100'0	28'6	...	14'3	...	14'3	57'1	...	814'3 14'29		} 28'6
Basim . .	66 {	30'3	...	...	...	30'3	...	...	...	30'3 15'15	75'8 15'15	...	...	...	...	...	...	30'3	...	287'9 45'45	} 15'2	
Yeotmahl . .	97 {	134'0 10'31	61'9 20'62	...	...	412'4	...	...	20'6 10'31	51'5 20'62	51'5	206'2	134'0	...	30'9	...	92'8	113'4	...	1,618'6 72'16		} 41'2
Secunderabad .	102 {	19'6	...	...	...	372'5 9'80	...	...	...	39'2 19'61	29'4	29'4	49'0	...	...	...	...	137'3	...	941'2 29'41	} 29'4	
Jubbulpore . .	1,524 {	41'3	...	...	...	228'3	7	...	17'1 11'81	26'9 9'19	19'7 66	112'2 51'18	45'3 2'62	...	3'3	...	28'2	111'5	...	815'6 82'02		} 34'1
Gaugor . .	250 {	60'0	12'0 12'00	...	...	304'0	60'0 12'00	8'0	24'0 8'00	60'0 16'00	88'0 12'00	136'0 4'00	380'0 16'00	...	92'0 4'00	...	116'0	24'0	...	1,624'0 100'00	} 64'0	
Damoh . .	203 {	24'6	78'8 34'48	...	...	226'6	4'9 4'93	...	9'9	44'3 24'63	93'6	694'6 226'60	128'1 24'63	...	93'6	...	98'5 9'85	64'0 4'93	...	1,773'4 339'90		} 78'8
Sambalpur . .	184 {	...	21'7 21'74	...	...	32'6	...	...	...	...	43'5 5'43	54'3 10'87	48'9 10'87	...	5'4	16'3	16'3 5'43	48'9	...	527'2 59'78	} 27'2	
Raipur . .	791 {	125'2 1'26	1'3 1'26	...	...	110'0	5'1 2'53	...	5'1 3'79	2'5 1'26	6'3	35'4 5'06	17'7 1'26	...	2'5	...	8'8 1'26	60'7	...	657'4 20'23		} 32'9
Bilaspur . .	242 {	28'9	...	...	...	173'6	...	...	8'3 8'26	20'7 8'26	4'1 4'13	186'0 45'45	49'6 4'13	...	20'7	...	74'4 4'13	45'5	...	876'0 99'17	} 78'5	
Mandla . .	108 {	...	...	...	...	175'9	27'8 9'26	9'3	...	18'5	46'3	138'9 64'81	64'8	...	9'3	...	55'6 18'52	259'3	...	1,018'5 101'85		} 46'3
Seoni . .	134 {	...	14'9 7'46	...	...	447'8	7'5 7'46	7'5	...	74'6 7'46	82'1	664'2 44'78	283'6 59'70	...	...	...	14'9	104'5	...	1,806'0 126'87	} 44'8	
Chhindwara . .	96 {	...	...	...	...	395'8	52'1 10'42	72'9	...	10'4	10'4	...	187'5 10'42	...	52'1	...	72'9	145'8	...	1,510'4 31'25		} 52'1
Betul . .	83 {	...	...	12'0	12'0	48'2	24'1	...	...	...	60'2	265'1 36'14	36'1	...	...	...	...	...	...	614'5 36'14	} 24'1	
Narsinghpur . .	198 {	...	...	10'1 5'05	...	1000'0	15'2	5'1	...	151'5 30'30	80'8 10'10	388'9 60'61	1555'6 20'20	5'1	5'1	70'7	156'6	505'1	...	4,601'0 141'41		} 96'0
Hoshangabad .	190 {	...	...	...	...	189'5	...	...	...	10'5	47'4	31'6 10'53	131'6 15'79	5'3 5'26	10'5	...	26'3	173'7	...	984'2 36'84	} 42'1	
Nimar . .	89 {	...	...	...	...	247'2	11'2	...	...	22'5 11'24	22'5	56'2	44'9 11'24	...	11'2	...	...	11'2	...	764'0 22'47		} 22'5
Nagpur . .	1,121 {	72'3	...	...	1'8 89	454'1	5'4 89	...	7'1 4'46	8'0 1'78	22'3	54'4 1'78	173'1 7'14	...	5'4	18'7	3'6	91'0	...	1,063'3 18'73	} 28'5	
Bhandara . .	115 {	87'0	...	...	...	400'0	...	234'8	...	8'7	52'2	52'2	217'4	...	17'4	8'7	52'2	95'7	...	1,678'3		} 60'9
Wardha . .	59 {	...	...	...	...	135'6	...	101'7	...	...	16'9	16'9	169'5 16'95	...	...	...	33'9	152'5	...	847'5 16'95	} 33'9	
Chanda . .	101 {	...	...	...	...	287'1	...	...	...	...	...	39'6 9'90	39'6 9'90	...	...	...	...	49'5	...	564'4 29'70		} 19'8
Sironcha . .	4 {	...	...	...	...	250'0	...	...	...	...	...	...	...	...	...	...	...	...	...	250'0	} 5'4*	
Balaghat . .	91 {	...	76'9 65'93	...	...	186'8 10'99	...	22'0	33'0	44'0 10'99	44'0	483'5 76'92	285'7 142'86	...	11'0	...	164'8 54'95	11'0	...	1,802'2 417'58		} 44'0
GROUP IX.— DECCAN	9,793 {	34'1 31	4'4 2'65	4 10	3 10	289'5 31	7'4 1'63	5'8	6'1 3'47	20'2 5'62	32'9 1'53	99'5 18'99	114'5 6'33	3 10	10'5 1'10	4'7 20	30'2 2'25	96'7 20	3	1,023'7 50'34	} 38'1	

* Worked on the aggregates.

PRISONERS, 1896.

TABLE XLII—continued.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION-RATE.							2. DEATH-RATE, PER 1,000 OF STRENGTH.													Average constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.		
Thana . .	653 {	...	73'5 36'75	...	...	313'9 ...	61'3 6'13	15'3 ...	12'3 1'53	7'7 1'53	70'4 9'19	144'0 18'38	220'5 16'85	...	24'5 1'...	10'7 3'06	44'4 3'06	87'3 ...	...	1,630'9 108'73	64'3
Bombay Common	279 {	...	...	10'8 ...	...	39'4 ...	3'6 ...	...	7'2 3'58	14'3 3'58	10'8 ...	71'7 21'51	39'4 7'17	...	...	...	...	10'8 ...	...	268'8 39'43	14'3
Bombay House of Correction }	269 {	...	...	...	...	141'3 ...	...	...	7'4 7'43	3'7 ...	22'3 ...	29'7 3'72	52'0 3'72	...	...	...	7'4 ...	11'2 ...	...	386'6 14'87	22'3
Ratnagiri. .	149 {	...	...	...	...	94'0 ...	...	...	...	...	20'1 6'71	107'4 ...	6'7 6'71	...	...	67'1 ...	...	60'4 ...	...	563'8 26'85	33'6
Karwar . .	72 {	...	...	...	...	69'4 ...	...	...	...	27'8 13'89	13'9 ...	41'7 ...	...	...	13'9 ...	...	...	13'9 ...	...	361'1 27'78	27'8
Mangalore .	86 {	...	...	...	...	11'6 ...	11'6 ...	23'3 ...	23'3 ...	...	...	81'4 ...	...	...	...	...	...	46'5 ...	...	418'6 ...	11'6
Cannanore .	640 {	...	...	...	...	12'5 ...	10'9 ...	76'6 ...	1'6 1'56	7'8 4'69	75'0 ...	15'6 ...	1'6 ...	...	7'8 ...	...	...	53'1 ...	...	609'4 12'50	31'2
GROUP X.— WESTERN COAST. }	2,148 {	...	22'3 11'17	1'4 ...	...	131'3 ...	22'8 1'86	28'4 ...	7'0 2'33	7'9 2'79	49'8 3'26	73'6 8'85	79'6 6'98	...	10'2 ...	7'9 '93	14'4 '93	51'7 ...	...	828'7 46'55	37'2
Madras Debtors' (Natives). }	28 {	...	...	...	...	428'6 ...	...	...	...	...	107'1 ...	71'4 ...	...	...	...	...	...	142'9 ...	...	1,500'0 ...	16'3*
Madras Penitentiary (Natives). }	802 {	2'5 ...	...	...	...	102'2 ...	1'2 ...	51'1 ...	17'5 3'74	7'5 4'99	46'1 1'25	24'9 ...	24'9 ...	1'2 1'25	1'2 ...	2'5 ...	13'7 ...	71'1 ...	...	710'7 12'47	29'9
Madras Penitentiary (Europeans.) }	15 {	...	...	...	...	...	...	...	...	...	...	133'3 ...	66'7 ...	...	...	...	66'7 ...	...	...	1,266'7 ...	29'6*
Madras Debtors' (Europeans). }	4 {	...	...	...	...	...	...	...	...	...	2500'0 ...	...	...	...	...	...	...	...	...	2,500'0 ...	14'7*
Bellary . .	356 {	...	...	...	...	432'6 2'81	14'0 ...	...	16'9 2'81	2'8 ...	103'9 ...	174'2 ...	...	...	5'6 ...	...	...	28'1 ...	...	1,404'5 14'04	36'5
Vellore . .	1,016 {	...	...	1'0 ...	...	155'5 ...	1'0 ...	277'6 ...	5'9 2'95	5'9 2'95	29'5 ...	95'5 '98	24'6 ...	1'0 '98	8'9 ...	...	...	41'3 ...	...	1,028'5 13'78	41'3
Cuddalore .	493 {	...	...	2'0 ...	...	20'3 ...	4'1 ...	30'4 ...	10'1 ...	2'0 2'03	38'5 ...	101'4 6'09	...	...	...	...	2'0 ...	34'5 ...	...	405'7 10'14	22'3
Coimbatore .	994 {	116'7 6'04	...	...	...	20'1 3'02	...	52'3 ...	29'2 7'04	8'0 1'01	56'3 1'01	70'4 1'01	...	...	2'0 ...	...	1'0 ...	39'2 ...	...	698'2 26'16	30'2
Madura . .	186 {	...	...	...	...	155'9 5'38	...	21'5 ...	16'1 ...	21'5 ...	32'3 5'38	182'8 5'38	...	...	...	...	21'5 ...	...	...	537'6 26'88	16'1
Trichinopoly .	873 {	16'0 ...	...	...	...	186'7 2'29	4'6 ...	...	19'5 8'02	6'9 2'29	33'2 ...	40'1 2'29	36'7 ...	...	...	...	8'0 ...	64'1 ...	...	555'6 25'20	19'5
Salem . .	590 {	5'1 ...	...	...	...	33'9 1'69	...	13'6 ...	16'9 3'39	...	18'6 1'69	78'0 3'39	3'4 ...	...	6'8 ...	...	5'1 ...	25'4 ...	1'7 ...	355'9 15'25	13'6
Tanjore . .	334 {	...	...	...	...	86'8 ...	...	3'0 ...	3'0 ...	6'0 2'99	32'9 ...	21'0 2'99	9'0 ...	...	...	...	15'0 ...	38'9 ...	...	458'1 32'93	24'0
Palamcottah .	306 {	...	6'5 3'27	...	...	9'8 3'27	...	26'1 ...	3'3 ...	3'3 ...	13'1 ...	26'1 6'54	...	...	...	...	9'8 ...	68'6 ...	...	480'4 16'34	22'9
Rajamundry .	849 {	...	1'2 ...	...	...	247'4 15'31	7'1 ...	4'7 ...	17'7 4'71	10'6 1'18	14'1 ...	127'2 8'25	...	...	16'5 1'18	9'4 ...	1'2 ...	27'1 1'18	...	811'5 47'11	31'8
Vizagapatam .	282 {	...	...	...	...	53'2 ...	7'1 ...	28'4 ...	14'2 ...	7'1 3'55	39'0 ...	53'2 7'09	21'3 ...	...	...	...	...	31'9 ...	...	333'3 14'18	17'7
Nellore . .	90 {	...	...	...	...	11'1 ...	...	311'1 ...	...	...	...	44'4 ...	11'1 ...	...	...	...	...	11'1 ...	...	544'4 ...	11'1
Berhampur .	118 {	...	8'5 8'47	...	...	161'0 8'47	...	8'5 ...	...	25'4 ...	8'5 ...	59'3 8'47	...	...	16'9 ...	...	...	135'6 ...	...	839'0 33'90	33'9
GROUP XI.— SOUTHERN INDIA. }	7,332 {	18'4 '82	'5 '27	'3 ...	...	126'2 3'14	2'9 ...	61'6 ...	15'1 3'68	6'7 1'91	36'6 '55	77'3 3'14	12'3 ...	3 '27	4'6 '14	1'4 ...	5'0 ...	44'1 '14	'1 ...	695'2 21'82	27'3

* Worked on the aggregates.

JAILS.	Average annual strength.	1. ADMISSION-RATE.								2. DEATH-RATE, PER 1,000 OF STRENGTH.													Average constant-ly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.			
Darjeeling .	89 {	11'2 ...	...	...	...	404'5 ...	...	...	...	...	...	213'5 ...	101'1 ...	...	33'7 ...	...	...	11'2 ...	...	943'8 ...	33'7
Almora .	88 {	...	...	...	...	159'1 ...	...	...	11'4 ...	22'7 11'36	11'4 ...	11'4 ...	45'5 11'36	...	...	...	11'4 ...	11'4 ...	...	363'6 22'73	22'7
Simla .	15 {	...	...	...	...	800'0 ...	66'7 ...	...	...	66'7 ...	66'7 ...	...	133'3 ...	...	...	...	...	266'7 ...	...	1,666'7 ...	66'7
Dharmsala .	88 {	22'7 ...	...	11'4 ...	11'4 ...	443'2 11'36	...	...	11'4 11'36	34'1 11'36	11'4 ...	193'2 ...	284'1 ...	...	11'4 ...	...	34'1 ...	68'2 ...	...	1,443'2 45'45	45'5
Abbottabad .	74 {	...	...	...	...	824'3 ...	...	...	...	13'5 13'51	...	27'0 ...	148'6 ...	...	13'5 ...	...	...	175'7 ...	...	1,324'3 13'51	27'0
Russellkonda .	52 {	...	...	...	...	76'9 ...	...	326'9 ...	...	19'2 ...	...	173'1 ...	...	...	...	...	...	230'8 ...	...	1,173'1 ...	38'5
Parvatipuram .	10 {	...	...	...	...	...	...	...	...	...	100'0 100'00	...	...	...	...	...	...	...	...	100'0 100'00	6'6*
Shillong .	37 {	162'2 ...	...	...	...	81'1 ...	27'0 ...	81'1 ...	...	...	...	135'1 27'03	162'2 ...	...	...	...	27'0 27'03	81'1 ...	...	864'9 54'05	27'0
Quetta .	42 {	...	...	...	...	666'7 ...	...	761'9 ...	...	23'8 23'81	71'4 ...	71'4 ...	142'9 ...	...	23'8 ...	...	47'6 ...	285'7 ...	...	2,833'3 47'62	47'6
GROUP XII.—HILLS.	495 {	18'2 ...	...	2'0 ...	2'0 ...	398'0 2'02	4'0 ...	105'1 ...	4'0 2'02	18'2 8'08	14'1 2'02	113'1 2'02	127'3 2'02	...	12'1 ...	...	14'1 2'02	105'1 ...	...	1,169'7 24'24	34'3
EXTRA INDIA—Aden .	67 {	...	...	...	...	253'7 ...	...	14'9 ...	14'9 ...	...	29'9 ...	44'8 ...	29'9 ...	...	...	...	...	...	...	447'8 ...	14'9
INDIA .	110,090 {	37'6 '60	2'3 1'27	1'1 '10	2'0 '06	278'5 1'02	13'4 1'07	25'5 '04	7'2 3'07	19'1 4'34	38'5 '94	91'2 5'91	65'4 1'98	1'0 '09	8'9 '14	1'0 '04	30'1 1'43	101'8 '05	1'0 '01	982'5 27'69	40'8		
ANDAMANS .	10,520 {	...	...	...	...	553'9 ...	16'5 2'19	24'8 ...	6'5 3'80	3'0 1'71	76'2 '57	68'9 6'08	59'3 1'43	1'0 ...	6'6 '19	4'0 ...	33'4 1'43	157'1 ...	1'0 '10	1,349'7 23'29	46'1
BURMA .	14,460 {	...	1'0 '55	1'0 '7	3'0 '14	139'9 '28	20'5 '62	35'1 ...	7'8 4'50	8'0 2'01	25'7 '76	73'0 2'97	39'1 '83	3'0 2'1	1'1 ...	1'0 ...	9'0 '28	103'6 ...	1'0 ...	759'2 18'19	35'1		
ASSAM .	1,273 {	6'3 ...	2'4 1'57	...	...	334'6 5'50	29'9 3'14	5'5 ...	5'5 3'14	10'2 3'93	16'5 1'57	179'9 13'35	143'8 6'28	8'0 ...	13'4 1'57	...	22'8 6'28	78'6 ...	...	1,033'8 56'56	53'4
BENGAL .	16,542 {	84'4 '54	6'9 3'75	2'0 ...	2'0 '12	257'3 1'57	12'3 1'57	67'8 ...	7'3 3'14	15'1 2'78	35'0 '54	231'6 7'38	100'5 1'15	2'0 1'18	8'8 '30	1'1 ...	11'9 1'27	42'5 ...	...	1,221'2 29'20	39'6	
N.-W. PROVINCES AND OUDH.	32,830 {	52'7 '91	8'0 '49	2'3 '12	2'0 '06	231'2 1'40	16'0 '73	7'0 '12	6'0 2'44	32'2 6'61	32'3 1'16	48'2 4'75	50'2 2'38	...	13'3 '03	2'0 '09	62'4 2'50	101'9 '06	...	891'7 28'82	51'2		
PUNJAB .	11,894 {	44'0 1'01	...	9'0 '42	2'0 ...	494'6 '25	7'0 '67	4'4 ...	4'7 1'85	18'6 3'78	49'2 '50	63'1 1'68	85'0 '67	...	9'2 '08	5'0 ...	12'4 1'17	197'1 ...	1'0 ...	1,233'9 15'64	30'8		
BOMBAY .	7,092 {	4'5 '99	7'3 3'67	2'7 ...	...	255'4 '14	10'6 1'97	4'4 ...	9'9 2'26	27'5 7'76	42'6 2'12	64'6 3'24	69'2 2'82	1'0 ...	9'9 ...	3'7 2'28	18'2 '85	72'8 ...	...	894'7 33'56	35'3
BERAR AND SE-CUNDERABAD	1,432 {	26'5 '70	4'2 1'40	7'0 ...	...	187'2 '70	9'1 ...	2'8 ...	1'4 '70	19'6 4'89	20'3 2'79	34'2 '70	25'8 '70	...	3'5 ...	3'5 1'40	27'9 4'89	54'5 '70	...	594'3 25'14	18'2	
CENTRAL PROVINCES.	5,583 {	50'2 '18	5'9 3'94	5'0 '18	5'0 '18	285'2 '18	7'5 1'79	8'4 ...	9'1 5'37	23'8 6'63	30'4 1'43	135'9 32'60	158'9 10'21	4'0 1'18	13'3 '18	7'0 ...	35'5 2'15	103'0 '18	...	1,112'1 72'36	40'8		
MADRAS .	8,120 {	16'6 '74	5'0 '25	2'0 ...	...	115'5 2'83	3'6 ...	64'0 ...	14'0 3'45	6'8 2'09	39'0 '62	73'0 2'83	11'2 ...	2'0 '25	4'8 '12	1'2 ...	4'6 ...	45'9 '12	1'0 ...	687'8 20'81	27'5	
NON-BRITISH JAILS:—																							
Sadra .	28 {	...	...	...	...	142'9 ...	35'7 ...	...	...	35'7 35'71	35'7 ...	35'7 ...	35'7 ...	...	...	...	...	71'4 ...	...	500'0 35'71	35'7
Kolhapur .	163 {	...	12'3 6'13	...	...	466'3 ...	...	49'1 ...	...	55'2 12'27	12'3 ...	306'7 12'27	165'6 18'40	...	...	...	6'1 ...	24'5 ...	...	1,214'7 55'21	42'9
Savant-vadi .	36 {	...	...	...	...	27'8 ...	...	...	...	...	...	166'7 27'78	55'6 27'78	...	...	...	...	...	...	333'3 55'56	11'2*
Mercara .	96 {	10'4 ...	104'2 ...	31'3	41'7 ...	41'7 ...	41'7 ...	93'8	20'8	31'3 ...	104'2	1,041'7 20'83	31'3		

* Worked on the aggregates.

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TABLE XLIII.

ACTUALS of FAILS, GROUPS, and ADMINISTRATION on which the ratios in Tables XL—XLII have been calculated.

JAILS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average number constantly sick.				
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.		Ascaris lumbricoides.	Filaria Medinensis.	Dochmius duodenalis.	Other Entozoa.
Akyab . . .	398 {	...	1	...	...	47	...	...	6	4	4	140	11	...	1	...	14	7	...	278	...	...	...	...	...	11
Kyaukpyu . .	120 {	...	...	...	...	15	...	...	...	...	...	14	...	...	...	...	...	4	...	33	...	...	...	...	...	1
Sadoway . . .	59 {	...	...	...	...	3	...	...	...	...	2	3	1	...	...	...	...	5	...	25	...	...	...	...	...	1
Myanaung . .	86 {	...	...	1	...	9	...	...	...	...	...	13	1	...	...	...	...	12	...	51	...	...	...	...	...	2
Henzada . . .	484 {	...	1	...	...	8	5	...	...	...	7	1	6	1	...	...	4	24	...	259	...	...	...	...	...	14
Bassein . . .	1,346 {	...	1	...	2	92	...	109	11	5	15	57	18	...	...	...	13	81	...	680	...	...	...	...	...	33
Maubin . . .	448 {	...	5	...	...	...	2	9	1	3	4	14	7	...	...	...	...	21	...	123	...	...	...	...	...	7
Rangoon, Europeans. }	24 {	...	...	...	...	13	...	5	...	...	1	2	2	...	...	...	...	2	...	41	...	...	...	...	...	2
Rangoon, Natives	2,772 {	...	...	...	...	626	190	343	28	16	110	165	131	1	1	1	15	514	...	3,419	3	21	...	3	...	128
Insein . . .	2,244 {	...	...	...	...	364	8	3	1	16	100	109	82	...	2	...	4	352	...	2,015	4	7	...	...	...	101
Moulmein . .	786 {	...	...	...	...	6	9	31	27	5	22	93	28	...	1	...	2	122	...	465	2	...	...	1	...	34
Tavoy . . .	111 {	...	...	...	...	2	2	1	...	...	1	8	3	...	2	...	4	14	...	56	...	...	...	...	...	3
Mergui . . .	41 {	...	...	...	...	6	...	...	...	...	...	4	1	...	...	...	...	5	...	22	...	...	...	...	...	1
Toungoo . . .	483 {	...	...	...	...	36	...	...	4	3	9	30	11	...	...	...	2	27	...	176	...	...	...	...	...	6
Shwegyin . .	186 {	...	...	...	...	46	1	...	...	1	5	37	22	1	...	...	2	65	...	265	...	...	...	...	...	15
Port Blair . .	10,520 {	...	...	...	...	5,827	174	261	68	32	802	725	624	1	69	4	351	1,653	1	14,199	...	...	1	71	1	485
GROUP I.—BURMA COAST AND BAY ISLANDS }	20,108 {	...	8	1	2	7,100	391	762	146	85	1,082	1,415	948	4	76	5	411	2,908	1	22,107	9	28	1	75	1	844
Thayetmyo . .	1,095 {	...	...	...	1	153	6	...	7	17	23	13	15	...	4	...	6	29	1	720	...	...	...	...	...	33
Myingyan . . .	1,142 {	...	6	1	1	250	61	...	13	31	17	117	105	1	...	...	26	59	...	947	...	...	...	...	...	45
Monywa . . .	120 {	...	...	...	...	...	...	2	...	...	...	2	...	...	...	...	...	10	...	32	...	...	...	...	...	2
Pakôkku . . .	73 {	...	...	...	...	2	...	...	...	...	...	...	1	...	...	...	...	3	...	6	...	...	...	...	...	...
Yamethin . .	115 {	...	...	...	...	22	...	...	1	...	...	32	18	...	...	...	2	19	...	124	...	...	...	...	...	4
Taungdwingyi .	69 {	...	...	...	...	4	...	...	1	...	...	2	...	...	1	...	...	6	...	28	...	...	...	...	...	1
Pagan . . .	96 {	...	...	...	...	5	4	...	...	1	1	1	2	...	...	...	...	6	...	75	...	...	...	...	...	6
Minbu . . .	124 {	...	...	...	...	20	1	...	...	...	2	1	4	...	1	...	3	28	...	103	...	...	...	...	...	4
Magwe . . .	132 {	...	...	...	...	1	...	1	...	...	1	4	2	...	...	...	1	5	...	17	...	...	...	...	...	1
Mandalay . .	1,097 {	...	...	...	...	176	1	...	8	7	30	154	49	...	...	...	14	19	...	566	...	...	...	...	...	34
Shwebo . . .	172 {	...	...	...	...	23	...	2	...	...	5	4	10	...	...	...	4	17	...	93	...	...	...	...	...	4
Bhamo . . .	83 {	...	...	...	...	27	4	...	2	3	1	22	13	...	3	...	9	4	...	101	...	...	...	...	...	3
Meiktila . . .	158 {	...	...	...	...	2	2	...	2	2	2	6	1	...	...	...	3	3	...	33	...	1	...	...	...	3
Katha . . .	84 {	...	...	...	...	19	...	...	...	1	4	1	5	...	...	...	1	11	...	71	...	...	...	...	...	2
Kindat . . .	75 {	...	...	...	...	43	...	...	...	...	2	1	10	...	...	...	...	17	...	85	...	...	...	...	...	2
Prome . . .	237 {	...	...	...	...	3	...	1	1	...	3	6	6	...	...	...	1	7	...	69	...	...	...	...	...	4
GROUP II.—BURMA IN-LAND. }	4,872 {	...	6	1	2	750	79	6	35	62	91	366	241	1	9	...	70	243	1	3,070	...	1	...	...	...	148

JAILS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average number constantly sick.				
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.		Ascaris lumbricoides.	Filaria Medinensis.	Dochmius duodenalis.	Other Entozoa.
Sylhet . . .	529 {	...	...	...	...	166 7	6 2	...	2 2	3 2	7 1	60 7	62 4	1 ...	7 ...	...	16 4	42 ...	...	456 33	...	1 ...	...	...	...	35
Cachar . . .	82 {	...	...	...	...	32 ...	1 ...	...	...	...	4 1	32 1	8 1	...	2 ...	...	2 ...	4 ...	...	97 4	...	...	...	...	...	4
Gauhati . . .	199 {	...	...	...	...	42 ...	5 ...	...	3 2	5 1	6 ...	31 4	44 ...	...	3 1	...	5 3	4 ...	...	179 15	...	...	...	8 ...	...	8
Tezpur . . .	218 {	...	...	...	...	67 ...	...	...	...	2 1	1 ...	17 ...	18 1	...	2 1	...	5 ...	20 ...	...	160 3	...	...	...	...	...	5
Sibsagar . . .	59 {	2 ...	...	...	...	13 ...	...	...	...	1 1	...	16 2	9 2	...	...	...	...	4 ...	...	54 6	...	...	...	...	...	3
Dibrugarh . .	63 {	...	...	...	...	75 ...	5 1	...	1 ...	1 ...	2 ...	57 1	21 ...	...	2 ...	...	...	2 ...	...	188 2	...	...	...	...	...	5
Dhubri . . .	18 {	...	2 2	...	...	12 ...	17 ...	...	1 ...	...	...	4 ...	5 ...	...	...	...	...	...	...	43 2	...	...	...	...	...	1
Nowgong . . .	68 {	...	1 ...	...	...	16 ...	3 1	4 ...	...	1 ...	1 ...	7 1	10 ...	...	1 ...	...	...	21 ...	...	107 5	...	1 ...	...	2 ...	...	6
GROUP III.— ASSAM.	1,236 {	2 ...	3 2	...	...	423 7	37 4	4 ...	7 4	13 5	21 2	224 16	177 8	1 ...	17 2	...	28 7	97 ...	...	1,284 70	...	2 ...	...	10 ...	...	67
Presidency, Eu- ropeans.	45 {	3 ...	1 ...	...	...	3 ...	4 ...	4 ...	...	1 ...	1 ...	11 ...	3 ...	...	...	...	1 ...	...	...	42 ...	...	...	...	...	...	1
Presidency, Na- tives.	1,166 {	92 ...	1 1	...	1	124 1	32 ...	81 ...	18 3	8 2	8 ...	219 5	56 1	1 1	...	2 ...	4 ...	20 ...	...	825 16	2 ...	...	...	...	...	30
Alipore . . .	1,592 {	...	2 2	...	...	82 2	1 ...	519 ...	14 12	29 5	103 1	393 6	111 1	...	5 ...	2 ...	14 ...	109 ...	...	2,469 36	1 ...	...	...	...	...	78
Baraset . . .	110 {	...	...	...	...	64 ...	1 ...	...	2 1	3 2	2 ...	64 2	20 ...	...	3 ...	1 ...	4 ...	27 ...	...	241 10	...	...	...	...	...	4
Jessore . . .	289 {	46 ...	1 1	...	...	88 ...	6 1	21 ...	...	10 ...	10 ...	244 2	17 ...	...	2 ...	...	4 ...	20 ...	...	546 8	...	...	...	...	...	18
Khulna . . .	35 {	...	...	...	...	4 ...	3 ...	1 ...	...	...	...	6 ...	1 ...	...	...	...	1 ...	...	...	17...	...	...	...	...	...	...
Krishnagar . .	180 {	...	1 1	...	...	27 ...	...	...	...	1 ...	4 ...	45 1	...	...	1 ...	...	3 ...	20 ...	...	117 3	...	...	...	...	...	8
Murshidabad . .	227 {	85 ...	1 1	...	...	121 ...	1 ...	...	2 1	3 2	20 ...	54 1	41 ...	...	1 ...	...	...	7 ...	...	443 6	2 ...	1 ...	...	...	...	12
Hooghly . . .	368 {	22 ...	2 ...	...	...	83 3	...	...	1 1	5 2	4 ...	109 4	109 ...	...	...	...	1 ...	5 ...	...	363 10	2 ...	...	...	...	...	10
Burdwan . . .	214 {	...	9 4	...	...	26 ...	4 ...	4 ...	1 ...	2 1	4 ...	13 3	3 ...	...	4 ...	...	5 1	10 ...	...	131 11	2 ...	...	...	...	...	6
Malda . . .	63 {	1 ...	...	...	...	40 ...	8 1	11 ...	1 1	...	...	20 ...	12 ...	...	4 ...	...	2 1	1 ...	...	119 3	...	...	...	...	...	3
Purneah . . .	147 {	...	...	...	...	84 ...	4 ...	...	...	7 ...	8 ...	74 4	25 2	...	3 ...	...	6 2	5 ...	...	238 9	...	1 ...	...	...	...	12
Jalpaiguri . . .	83 {	...	...	...	...	15 3	...	...	1 1	1 ...	3 ...	14 1	4 ...	...	1 ...	...	1 ...	2 ...	...	55 5	...	...	...	...	...	2
Dinajpur . . .	180 {	8 ...	...	...	...	307 ...	13 ...	...	9 3	5 3	7 ...	140 5	25 ...	...	1 ...	...	4 1	3 ...	...	569 16	...	...	...	...	...	16
Rangpur . . .	139 {	...	...	...	1	107 ...	8 1	...	1 1	4 1	20 ...	89 4	23 ...	...	5 ...	...	...	11 ...	...	304 10	...	...	...	...	...	7
Rajshahi . . .	690 {	9 ...	2 2	...	...	192 ...	20 2	...	9 4	6 2	23 ...	13 4	22 1	...	3 ...	...	...	5 ...	...	475 16	...	...	...	...	...	17
Bogra . . .	108 {	20 ...	2 1	...	...	57 ...	6 ...	11 ...	5 1	3 ...	11 ...	134 ...	2 ...	...	4 ...	...	...	2 ...	...	284 2	...	...	...	...	...	7
Mymensingh . .	336 {	...	...	...	...	87 1	6 1	...	2 ...	3 2	13 ...	102 1	64 ...	...	9 ...	1 ...	29 3	22 ...	...	416 9	...	...	...	...	...	19
Pabna . . .	125 {	...	...	...	...	18 ...	8 1	18 ...	1 ...	2 1	5 ...	17 2	9 ...	...	...	3 ...	1 ...	8 ...	...	104 5	...	...	...	...	...	4
Faridpur . . .	360 {	12 ...	...	...	...	31 ...	7 ...	58 ...	2 1	6 2	20 ...	122 1	19 ...	...	18 ...	2 ...	2 ...	4 ...	...	361 5	...	...	...	...	...	15
Backergunge . .	478 {	...	4 2	149 ...	3 3	...	1 ...	5 1	54 ...	126 8	106 2	1 1	9	8 1	14	538 23	25
Noakhali . . .	87 {	3	40 ...	1 ...	2	4 ...	33 ...	19	1	118	2

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TABLE XLIII—continued.

ACTUALS of JAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

JAILS.	Average annual strength.	1. ADMISSIONS.								2. DEATHS.														Average number constantly sick.		
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.	Ascaris lumbricoides.	Filaria Medinensis.		Dochmius duodenalis.	Other Entozoa.
Chittagong	203	...	...	...	...	70	...	...	1	1	...	26	24	...	...	1	9	...	153	...	...	...	...	...	...	3
Tippera	246	...	1	...	...	32	3	35	5	3	2	194	11	...	1	6	1	...	302	...	...	...	...	...	...	16
Dacca	1,068	426	1	...	...	325	2	166	1	85	10	233	24	...	1	27	28	...	1,563	...	...	...	...	...	...	75
Cuttack	200	...	...	...	...	56	1	1	2	1	5	44	16	...	6	1	12	...	178	...	1	...	...	...	...	6
Puri	63	...	...	...	...	3	...	...	...	4	2	...	2	1	...	1	2	...	21	...	1	...	...	...	...	1
Balasore	105	3	3	...	1	31	...	1	...	2	6	25	32	...	...	...	4	...	113	...	...	...	...	...	...	3
Midnapore	888	155	1	...	...	270	12	...	3	11	15	287	44	...	...	1	21	...	964	...	...	...	...	...	...	49
Bankura	294	13	7	...	...	127	...	...	1	7	21	135	96	...	2	1	21	...	550	1	1	...	...	...	...	11
Suri	214	8	...	1	...	117	1	...	1	1	6	12	11	...	6	6	15	...	249	...	1	...	...	...	...	7
Naya Dumka	70	5	...	...	...	10	5	4	...	...	3	26	2	...	...	7	1	...	79	...	...	...	...	...	...	3
GROUP IV.— BENGAL AND ORISSA.	10,373	911	39	1	3	2,790	160	937	84	219	394	3,024	953	3	83	17	141	410	...	12,947	10	6	...	...	...	470
Monghyr	234	14	...	...	...	45	...	...	1	...	6	46	118	...	3	...	1	15	...	323	2	...	...	...	...	12
Bhagalpur	1,206	97	...	...	...	106	...	62	3	9	49	34	52	...	4	...	8	25	...	577	...	...	...	...	1	22
Purulia	140	...	1	...	...	19	...	...	...	...	3	20	12	...	...	1	...	...	59	...	...	...	...	...	...	1
Chaibassa	95	16	...	...	1	31	3	...	1	...	4	41	24	...	7	...	5	2	...	162	...	...	...	...	...	6
Ranchi	198	25	...	...	...	34	2	...	1	1	8	34	25	...	...	...	5	13	...	175	...	...	...	...	...	4
Palamau	58	14	...	...	...	25	3	...	1	...	...	5	2	...	11	...	...	...	75	...	...	...	...	...	...	2
Hazaribagh	934	111	...	...	...	39	5	114	11	7	19	19	3	...	...	1	18	...	405	...	...	...	1	...	...	21
Gaya	443	83	3	...	...	249	10	7	...	2	21	64	40	...	5	...	3	53	...	689	1	1	...	...	1	18
Patna	278	...	36	1	...	107	10	...	1	1	5	71	67	...	8	...	1	17	...	398	...	...	...	1	...	12
Arrah	248	...	1	1	...	107	...	1	1	2	2	33	28	...	2	...	...	14	...	225	...	...	...	...	...	7
Buxar	1,097	...	...	...	...	360	...	...	10	3	13	42	55	...	1	...	2	62	...	798	...	1	...	...	...	23
Champarun	312	23	...	...	...	119	1	...	4	1	11	120	108	...	9	...	14	28	...	500	...	...	...	...	...	15
Muzaffarpur	322	66	...	...	...	57	4	1	...	...	13	30	21	...	...	...	3	9	...	260	...	...	...	...	...	8
Darbhanga	284	35	30	...	...	41	4	...	2	3	1	137	80	...	...	2	2	17	...	397	...	...	...	...	...	12
Chapra	231	...	4	...	...	92	2	...	...	1	30	92	65	...	10	...	10	19	...	473	1	45	...	...	...	19
Ghazipur	544	31	...	1	...	36	2	...	1	14	25	7	24	...	4	...	55	51	...	382	...	2	...	...	...	28
Benares, Central	2,327	136	3	1	...	322	...	1	15	12	30	45	25	...	3	...	123	195	...	1,252	1	3	...	...	...	179
„ District	506	33	...	8	...	97	3	3	3	10	3	41	22	...	8	...	81	43	...	450	...	...	...	1	...	61
Chunar	1,466	...	...	...	...	509	213	1	24	39	77	66	144	...	10	...	184	199	...	1,868	...	...	1	...	...	96
Mirzapur	280	5	3	2	...	87	13	...	1	41	21	17	19	...	11	...	39	61	...	457	...	...	...	...	...	20
Azamgarh	476	...	...	...	...	141	2	...	4	2	17	37	28	...	2	...	161	74	...	688	...	1	...	...	...	58
Jaunpur	344	1	...	4	...	84	1	1	1	4	4	20	19	...	1	...	21	28	...	231	...	...	...	...	...	14

JAILS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average number constantly sick.				
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.		Ascaris lumbricoides.	Filaria Medinensis.	Dochmius duodenalis.	Other Entozoa.
Gorakhpur .	474 {	33 2	...	...	83	...	...	5	11	24	125	8	...	74	...	126	57	...	761	2	3	...	35	...	55
Basti .	498 {	...	...	...	221	...	...	1	17	17	71	45	...	10	...	49	71	...	658	...	...	...	...	...	33
Gonda .	637 {	...	...	2	237	2	...	1	9	11	42	19	...	...	...	42	46	...	530	...	...	...	...	...	31
Bahraich .	453 {	35 1	...	...	242	...	...	6	7	6	84	13	...	7	...	52	60	...	650	...	...	...	...	...	42
Fyzabad .	736 {	55 3	5	9	245	1	1	...	15	25	35	45	...	3	1	49	113	...	873	...	...	...	...	...	41
Sultanpur .	106 {	...	...	2	3	1	1	...	...	1	...	2	...	1	...	17	1	...	58	...	...	...	...	...	3
Rai Bareli .	615 {	...	1	1	89	1	...	2	3	11	6	12	...	5	...	118	58	...	376	...	...	...	...	...	22
Partabgarh .	277 {	1	...	...	69	...	...	...	1	4	9	5	...	1	...	9	19	...	196	...	...	...	...	...	6
Hardoi .	474 {	42	...	2	17	115	31	1	...	4	14	37	...	...	...	4	38	...	440	...	...	...	...	...	18
Kheri .	366 {	...	...	...	125	1	...	...	15	7	55	28	...	7	2	50	52	...	439	...	...	...	...	...	19
Lucknow, Central	1,689 {	145 3	...	2	125	42	4	6	10	32	29	22	...	10	...	26	68	...	709	...	...	...	...	...	53
„ District	668 {	111 2	...	...	95	11	...	4	10	10	28	16	...	2	...	28	71	...	537	...	...	...	...	...	34
Sitapur .	797 {	36 4	...	...	47	8	...	...	13	2	22	26	...	2	...	64	46	...	374	...	...	...	2	...	21
Barabanki .	382 {	6	...	...	19	...	2	2	3	5	3	1	...	...	...	4	16	...	112	...	...	...	...	...	7
Unao .	309 {	1	...	...	34	1	24	2	5	29	10	25	...	3	1	26	80	...	460	...	...	...	...	...	17
Hamirpur .	215 {	...	...	...	76	...	...	...	8	54	44	7	...	28	...	30	62	...	418	...	...	...	...	...	20
Orai .	179 {	28 2	5 3	1	151	1	9	6	1	8	19	14	...	...	...	2	17	...	305	...	...	...	...	...	7
Fatehgarh, Central.	2,162 {	182	...	7	312	10	...	26	23	52	175	216	...	12	...	34	233	...	1,764	1	...	...	...	...	112
„ District	395 {	...	...	...	79	7	...	9	9	59	48	60	...	1	...	9	73	...	447	1	...	...	...	...	14
Cawnpore .	383 {	...	...	1	10	1	...	1	7	12	11	12	...	2	...	165	40	...	353	...	...	...	...	...	24
Fatehpur .	412 {	13	...	...	24	1	20	2	7	12	24	5	...	14	...	12	21	...	241	...	...	...	...	...	12
Banda .	292 {	28 2	...	...	130	1	...	7	9	25	49	22	...	30	...	9	77	...	534	...	...	...	...	...	23
Allahabad, Central.	2,287 {	70 3	...	17	378	...	...	2	47	35	30	49	...	27	...	54	217	...	1,339	...	...	...	1	...	59
„ District	699 {	54	4	4	280	1	3	3	76	46	9	80	...	10	...	29	70	...	959	...	...	...	...	...	62
Etawah .	253 {	...	...	1	35	1	...	2	3	10	6	16	...	2	...	15	28	...	199	...	...	...	...	...	8
Mainpuri .	365 {	1	...	...	97	1	...	1	3	1	5	2	...	2	...	2	39	...	236	...	...	...	...	...	7
Etah .	370 {	...	...	...	166	13	...	5	4	17	2	23	...	4	...	88	60	...	491	...	...	...	...	...	26
GROUP V.— GANGETIC PLAIN AND CHUTIA NAGPUR.	28,516 {	1,531 31	96 52	60 1	8 3	6,096 47	498 33	286 2	179 70	468 133	881 29	1,976 164	1,791 63	...	356 8	6 ...	1,833 82	2,676 2	1	25,303 860	9	56	1	37 1	6 1	1,414
Aligarh .	405 {	4	...	...	174	21	7	3	14	87	46	64	...	4	...	8	68	...	708	...	...	...	...	...	16
Bulandshahr .	274 {	9	98	2	2	1	3	24	13	26	...	5	...	5	39	...	302	9	
Shahjahanpur .	420 {	49	112	1	...	7	17	28	19	20	...	7	...	38	29	...	418	19	

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TABLE XLIII—continued.

ACTUALS of JAILS, GROUPS and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

JAILS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average number constantly sick.				
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.		Ascaris lumbricoides.	Filaria Medinensis.	Dochmius denalis.	Other Entozoa.
Bareilly, Central	2,339	391	...	2	...	845	...	...	8	149	8	28	21	...	...	...	29	322	...	2,101	...	...	...	...	2	103
„ District	991	100	...	5	...	237	...	74	8	156	54	35	105	...	34	...	40	74	...	1,128	...	1	...	...	...	54
Budaon . .	400	...	...	...	...	82	25	...	2	14	6	17	34	...	1	...	8	20	...	294	...	...	...	1	...	7
Saharanpur .	287	...	1	...	...	154	2	...	...	39	12	18	43	...	10	...	...	58	...	417	...	3	...	17	...	16
Bijnor . .	274	29	...	...	...	18	...	...	2	10	5	6	3	...	9	...	4	11	...	145	...	...	...	...	...	7
Dehra Dun. .	83	...	4	...	...	30	1	...	...	1	3	5	20	...	1	...	1	7	...	94	...	1	...	...	...	4
Muzaffarnagar .	188	35	...	...	...	117	...	...	...	12	4	22	14	...	2	...	4	26	...	285	...	...	...	...	...	12
Moradabad .	413	17	...	1	...	130	4	34	2	16	20	36	30	...	13	...	33	44	...	543	...	...	...	...	...	33
Meerut . .	648	46	...	...	1	201	4	7	3	10	26	11	47	1	15	...	9	26	...	534	...	...	2	...	...	18
Delhi . .	459	...	...	2	...	356	2	5	2	11	25	25	46	...	1	...	3	88	...	691	...	...	2	...	...	13
Rohtak . .	162	...	...	...	...	138	1	...	...	6	...	14	17	...	...	...	1	40	...	259	...	...	1	...	...	4
Hissar . .	198	...	...	1	...	27	...	...	1	2	3	...	8	...	...	...	4	19	...	123	...	...	18	...	...	5
Karnal . .	164	...	...	...	...	38	...	...	...	6	7	21	6	...	4	...	1	15	...	134	...	...	3	...	...	3
Umballa . .	588	11	...	2	...	227	2	...	2	15	34	49	68	...	7	...	5	71	...	630	...	...	1	...	...	17
Ludhiana . .	227	2	...	...	...	49	...	39	...	...	...	4	8	...	1	...	2	34	...	210	...	...	...	...	...	5
Hoshiarpur .	50	...	...	...	...	34	...	...	1	3	2	1	...	...	...	...	...	8	...	76	...	...	...	...	...	2
Jullundur . .	239	...	...	...	...	51	7	2	1	4	10	10	5	...	1	...	2	16	...	148	...	...	1	...	...	3
Ferozepore .	391	19	...	1	...	16	2	...	...	13	16	12	3	...	2	...	...	17	...	164	...	...	4	...	...	6
Amritsar . .	171	...	...	...	...	137	3	...	...	1	5	13	20	...	...	...	9	48	...	272	...	...	...	...	...	6
Lahore, Central .	1,285	307	...	...	...	929	2	...	12	34	143	117	190	...	21	1	15	432	...	2,680	...	...	...	...	...	50
„ District	509	13	...	1	...	162	1	...	2	10	11	33	9	...	1	...	2	83	...	420	...	...	2	...	...	17
„ Female	157	1	...	...	...	68	3	...	1	2	6	21	4	...	...	...	...	12	...	173	2	...	...	...	...	5
Sialkot . .	300	...	...	...	...	56	1	...	1	3	5	27	31	...	...	...	...	52	...	228	...	...	...	...	...	5
Gurdaspur . .	186	2	...	...	...	18	...	...	...	2	...	6	3	...	...	...	1	12	...	64	...	...	...	...	...	2
Gujranwala .	331	...	...	...	...	143	...	...	2	5	3	16	31	...	4	...	5	46	...	318	...	...	...	...	...	11
Chinawan . .	676	38	...	...	...	430	9	...	3	11	60	19	15	...	...	...	...	35	...	659	...	...	1	...	...	22
Gujrat . .	86	...	...	...	1	12	3	...	1	5	4	8	3	...	...	...	3	8	...	69	...	...	...	...	...	2
Jhelum . .	257	...	...	...	...	197	...	...	...	1	7	11	20	...	...	...	...	37	...	309	...	...	4	...	1	5
Rawalpindi .	691	19	...	...	...	736	...	5	1	18	28	94	123	...	13	...	4	240	...	1,544	4	...	5	...	...	26
GROUP VI.— UPPER SUB- HIMALAYAN	13,849	1,092	5	15	2	6,022	96	175	66	593	658	757	1,037	1	155	2	236	2,037	...	16,140	6	5	44	18	3	507

JAILS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average number constantly sick.				
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.		Ascaris lumbricoides.	Filaria Medinensis.	Dochmius duodenalis.	Other Entozoa.
Shahpur . .	234 {	...	...	1	...	61	...	...	...	10	11	9	23	...	1	...	2	22	...	179	...	...	...	...	...	4
Montgomery .	1,304 {	81	...	...	...	380	7	...	5	5	53	54	112	...	12	...	22	345	1	1,315	...	...	10	...	...	37
Jhang . .	226 {	...	...	...	...	113	...	...	...	6	11	43	55	...	...	...	...	56	...	357	...	...	...	...	...	6
Mooltan, Central	895 {	...	...	...	...	415	3	...	13	9	59	48	106	...	32	2	50	217	...	1,264	2	...	2	...	...	43
„ District.	599 {	...	...	2	...	93	1	...	...	8	9	7	3	...	2	...	1	28	...	217	...	...	...	...	...	7
Dera Ghazi Khan	338 {	18	...	...	...	169	1	...	2	18	27	3	22	...	1	1	6	100	...	440	...	...	...	...	...	11
Dera Ismail Khan	385 {	9	...	...	...	154	29	...	2	2	7	27	10	...	1	...	...	55	...	419	...	...	38	...	...	11
Bannu . .	109 {	...	...	...	...	47	1	...	...	...	3	5	2	...	1	...	...	34	...	134	...	...	6	...	...	5
Kohat . .	96 {	...	...	...	...	67	2	1	...	3	2	2	6	...	1	...	3	34	...	136	...	...	2	...	...	3
Peshawar . .	404 {	1	...	...	...	448	2	...	3	3	20	32	24	...	3	1	4	117	...	794	...	...	1	...	...	23
Kurrachee .	293 {	...	...	2	...	65	2	...	4	7	13	17	15	...	6	1	1	17	1	214	...	...	...	...	...	12
Hyderabad .	673 {	...	...	...	...	43	...	...	2	27	29	13	25	...	1	1	11	23	...	291	1	...	1	...	...	11
Sind Gang .	310 {	16	...	...	...	73	5	1	1	22	30	8	23	...	...	4	15	10	...	263	2	...	1	...	...	8
Shikarpur . .	541 {	...	...	13	...	62	4	1	1	41	23	12	9	...	6	...	4	40	...	310	1	...	...	...	...	15
GROUP VII.— N.-W. FRONTIER, INDUS VALLEY AND N.-W. RAJ- PUTANA,	6,407 {	125	...	18	...	2,190	57	3	33	161	297	280	435	...	67	10	119	1,098	2	6,333	6	...	61	...	...	196
Muttra . .	270 {	...	...	1	...	42	4	...	1	6	6	15	10	...	7	1	15	21	...	234	...	...	1	...	...	13
Agra, Central	2,273 {	...	...	3	...	420	...	1	10	136	60	84	62	...	20	...	58	132	...	1,554	...	...	...	...	...	93
„ District .	680 {	...	...	2	...	114	...	...	2	28	15	14	21	...	5	...	16	62	...	367	...	...	3	...	...	29
Jhansi . .	243 {	1	1	2	...	62	2	...	3	6	4	7	18	...	3	...	3	13	...	176	...	...	...	...	...	8
Lalitpur . .	118 {	1	...	1	...	74	5	3	...	...	...	17	14	...	5	...	1	8	...	154	...	...	...	...	...	6
Ajmere . .	352 {	...	...	...	...	13	...	...	...	2	6	5	...	...	...	...	...	14	...	67	1	...	3	...	...	4
Ahmedabad .	934 {	...	...	1	...	273	5	11	42	48	22	97	44	...	14	1	8	57	...	859	2	...	16	...	...	23
Rajkot . .	74 {	...	...	...	...	30	1	1	...	1	1	1	6	...	2	...	1	2	...	59	...	...	...	...	...	2
GROUP VIII.— S. E. RAJPUT- ANA, CENTRAL INDIA AND GUJARAT.	4,894 {	2	1	10	...	1,028	17	16	58	227	114	240	175	...	56	2	102	309	...	3,470	3	...	23	178

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TABLE XLIII—continued.

ACTUALS of FAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

JAILS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average number constantly sick.				
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.		Ascaris lumbricoides.	Filaria Medinensis.	Dochmius denalis.	Other Entozoa.
Nasik .	43 {	...	...	...	...	...	...	...	2	...	1	...	...	...	...	2	2	...	11	...	...	1	...	...	...
Dhulia .	246 {	...	2	...	...	46	...	...	1	2	...	19	11	...	3	...	5	...	109	...	...	3	...	...	4
Yerrowda .	1,474 {	...	1	...	...	580	1	1	3	9	81	80	116	1	16	...	34	240	3	1,899	...	...	35	...	81
Dharwar .	367 {	1	1	...	...	73	1	1	...	8	12	23	27	...	...	10	7	...	226	...	...	9	...	...	13
Bijapur District	292 {	15	...	...	...	154	1	...	...	6	5	17	5	...	2	...	10	...	299	...	...	30	...	...	8
Deccan Gang	356 {	...	...	...	...	122	14	4	3	10	25	26	38	...	3	2	12	30	421	...	...	8	...	...	13
Amraoti .	511 {	21	...	1	...	58	1	...	...	4	6	5	11	...	...	10	12	...	197	...	...	1	...	...	5
Akola .	544 {	...	...	...	...	54	12	2	...	13	8	12	6	...	1	5	18	28	255	...	...	5	...	...	10
Ellichpur .	42 {	...	...	...	...	52	...	...	...	...	1	2	...	...	...	2	7	...	70	...	...	...	...	...	1
Buldana .	70 {	...	...	...	...	24	...	2	...	...	1	7	2	...	1	...	1	4	57	...	...	1	...	...	2
Basim .	66 {	2	...	...	...	2	...	...	...	2	5	...	...	...	...	...	2	...	19	...	...	2	...	...	1
Yeotmahl .	97 {	13	6	...	...	40	...	...	2	5	5	20	13	...	3	...	9	11	157	...	...	...	...	...	4
Secunderabad	102 {	2	...	...	...	38	...	...	...	4	3	3	5	...	...	...	14	...	96	...	...	1	...	...	3
Jubbulpore	1,524 {	63	...	...	...	348	1	...	26	41	30	171	69	...	5	...	43	170	1,243	...	...	...	...	...	52
Saugor .	250 {	15	3	...	...	76	15	2	6	15	22	34	95	...	23	...	29	6	406	...	...	1	...	...	16
Damoh .	203 {	5	16	...	...	46	1	...	2	9	19	141	26	...	19	...	20	13	360	...	...	13	...	...	16
Sambalpur	184 {	...	4	...	...	6	...	...	...	...	8	10	9	...	1	3	3	9	97	...	...	...	...	...	5
Raipur .	791 {	99	1	...	...	87	4	...	4	2	5	28	14	...	2	...	7	48	520	3	...	...	...	...	26
Bilaspur .	242 {	7	...	...	...	42	...	...	2	5	1	45	12	...	5	...	18	11	212	...	...	...	...	...	19
Mandla .	108 {	...	...	...	...	19	3	1	...	2	5	15	7	...	1	...	6	28	110	...	...	...	...	...	5
Seoni .	134 {	...	2	...	...	60	1	1	...	10	11	89	38	...	...	...	2	14	242	...	...	...	...	...	6
Chhindwara	96 {	...	...	...	...	38	5	7	...	1	1	...	18	...	5	...	7	14	145	...	...	...	...	...	5
Betul .	83 {	...	...	1	1	4	2	...	...	...	5	22	3	...	...	...	...	...	51	...	...	...	...	...	2
Narsinghpur	198 {	...	...	2	...	198	3	1	...	30	16	77	308	1	1	14	31	100	911	...	...	...	...	...	19
Hoshangabad	190 {	...	...	...	...	36	...	...	...	2	9	6	25	1	2	...	5	33	187	...	...	...	...	...	8
Nimar .	89 {	...	...	...	...	22	1	...	...	2	2	5	4	...	1	...	...	1	68	...	...	4	...	...	2
Nagpur .	1,121 {	81	...	2	...	509	6	...	8	9	25	61	194	...	6	21	4	102	1,192	...	...	1	...	...	32
Bhandara .	115 {	10	...	...	...	46	...	27	...	1	6	6	25	...	2	1	6	11	193	...	...	...	...	...	7
Wardha .	59 {	...	...	...	...	8	...	6	...	...	1	1	10	...	...	...	2	9	50	...	...	...	...	...	2
Chanda .	101 {	...	...	...	...	29	...	...	...	...	...	4	4	...	...	...	...	5	57	...	...	...	...	...	2
Sironcha .	4 {	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Balaghat .	91 {	...	7	...	...	17	...	2	3	4	4	44	26	...	1	...	15	1	164	...	...	...	...	...	4
GROUP IX.— DECCAN .	9,793 {	334	43	4	3	2,835	72	57	60	198	322	974	1,121	3	103	46	296	947	3	10,025	3	...	115	...	1	373

JAILS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average number constantly sick.				
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.		Ascaris lumbricoides.	Filaria Medinensis.	Dochmius duodenalis.	Other Entozoa.
Thana . . .	653 {	..	48 24	..	..	205	40 4	10	8 1	5 1	46 6	94 12	144 11	..	16	7 2	29 2	57	..	1,065 71	..	..	34	..	..	42
Bombay Common	279 {	..	..	3	..	11	1	..	2 1	4 1	3	20 6	11 2	..	..	..	..	3	..	75 11	..	..	1	..	..	4
„ House of Correction.	269 {	..	..	..	..	38	..	..	2 2	1	6	8 1	14 1	..	..	..	2	3	..	104 4	..	..	..	..	..	6
Ratnagiri . . .	149 {	..	..	..	..	14	..	..	..	..	3 1	16	1 1	..	..	10	..	9	..	84 4	..	..	..	..	..	5
Karwar . . .	72 {	..	..	..	..	5	..	..	..	2 1	1	3	..	..	1	..	..	1	..	26 2	..	..	1	..	..	2
Mangalore . . .	86 {	..	..	..	..	1	1	2	2	..	..	7	..	..	..	..	..	4	..	36	..	..	..	..	..	1
Cannanore . . .	640 {	..	..	..	..	8	7	49	1 1	5 3	48	10	1	..	5	..	..	34	..	390 8	..	116	..	1	9	20
GROUP X.—WESTERN COAST.	2,148 {	..	48 24	3	..	282	49 4	61	15 5	17 6	107 7	158 19	171 15	..	22	17 2	31 2	111	..	1,780 100	..	116	36	1	9	80
Madras Debtors (Natives)	28 {	..	..	..	..	12	..	..	..	..	3	2	..	..	..	..	..	4	..	42	..	..	..	..	..	..
Madras Penitentiary (Natives).	802 {	2	..	..	..	82	1	41	14 3	6 4	37 1	20	20 1	1	1	2	11	57	..	570 10	..	..	5	..	..	24
Madras Penitentiary (Europeans).	15 {	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	1	..	..	19	..	..	..	..	..	..
Madras Debtors (Europeans).	4 {	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Bellary . . .	356 {	..	..	..	..	154	5	..	6 1	1	37	62	..	..	2	..	..	10	..	500 5	2	1	30	..	..	13
Vellore . . .	1,016 {	..	..	1	..	158	1	282	6 3	6 3	30	97 1	25 1	1	9	..	..	42	..	1,045 14	5	..	5	..	..	42
Cuddalore . . .	493 {	..	..	1	..	10	2	15	5 1	1	19	50 3	..	..	..	..	1	17	..	200 5	..	..	11	..	..	11
Coimbatore . . .	994 {	116 6	..	..	..	20	..	52	29 7	8 1	56 1	70 1	..	..	2	..	1	39	..	694 26	..	..	52	..	..	30
Madura . . .	186 {	..	..	..	..	29	..	4	3	4	6 1	34 1	..	..	..	..	4	..	..	100 5	..	..	1	..	..	3
Trichinopoly . . .	873 {	14	..	..	..	163	4	..	17 7	6 2	29	35 2	32	..	..	..	7	56	..	485 22	..	..	5	..	..	17
Salem . . .	590 {	3	..	..	..	20	..	8	10 2	..	11 1	46 2	2	..	4	..	3	15	1	210 9	..	..	34	..	..	8
Tanjore . . .	334 {	..	..	..	..	29	..	1	1	2 1	11	7 1	3	..	..	..	5	13	..	153 11	..	..	1	..	..	8
Palamcottah . . .	306 {	..	2 1	..	..	3	..	8	1	1	4	8 2	..	..	..	..	3	21	..	147 5	..	1	..	..	..	7
Rajamundry . . .	849 {	..	1	..	..	210	6	4	15 4	9 1	12	108 7	..	..	14	8	1	23 1	..	689 40	..	4	12	..	..	27
Vizagapatam . . .	282 {	..	..	..	..	15	2	8	4	2 1	11	15 2	6	..	..	..	..	9	..	94 4	..	..	..	..	..	5
Nellore . . .	90 {	..	..	..	..	1	..	28	..	..	..	4	1	..	..	..	..	1	..	49	..	1	1	..	..	1
Berhampur . . .	118 {	..	1 1	..	..	19	..	1	..	3	1	7 1	..	..	2	..	..	16	..	99 4	..	..	..	..	..	4
GROUP XI.—SOUTHERN INDIA.	7,332 {	135 6	4 2	2	..	925	21	452	111 27	49 14	268 4	567 23	90	2 2	34 1	10	37	323 1	1	5,097 160	7	7	157	200

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TABLE XLIII—continued.

ACTUALS of JAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

JAILS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										ALL CAUSES.	Tania.	Ascaris lumbricoides.	Filaria Medinensis.	Dochmius duodenalis.	Other Entozoa.	Average number constantly sick.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer and Boil.	Phagedæna, Slough, and Gangrene.									
Darjeeling .	89 {	1	...	...	...	36	...	...	...	...	19	9	...	3	...	...	1	...	84	2	...	...	...	...	...	3
Almcra .	88 {	...	...	...	...	14	...	...	1	2	1	4	...	...	...	1	1	...	32	2	...	...	...	...	...	2
Simla .	15 {	...	...	...	...	12	1	...	...	1	1	2	...	...	...	...	4	...	25	...	...	...	...	...	...	1
Dharmasala .	88 {	2	...	1	1	39	...	...	1	3	1	25	...	1	...	3	6	...	127	4	...	1	...	...	...	4
Abbottabad .	74 {	...	...	...	...	61	...	...	...	1	...	2	11	...	1	...	13	...	98	1	...	...	...	...	...	2
Russellkonda .	52 {	...	...	...	...	4	...	17	...	1	...	9	...	...	...	...	12	...	61	...	...	...	...	...	...	2
Parvatipuram .	10 {	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	..
Skillong .	37 {	6	...	...	...	3	1	3	...	...	...	5	6	...	...	1	3	...	32	2	...	...	...	...	...	1
Quetta .	42 {	...	...	...	...	28	...	32	...	1	3	3	6	...	1	2	12	...	119	2	...	...	...	...	...	2
GROUP XII.—HILLS.	495 {	9	...	1	1	197	2	52	2	9	7	56	63	...	6	...	7	52	...	579	12	2	...	1	...	17		
EXTRA INDIA:—Aden .	67 {	...	...	...	...	17	...	1	1	...	2	3	2	...	...	...	...	...	30	...	...	...	...	...	...	1
INDIA†(a)	110,090 {	205 4,141	...	...	...	935 30,655	36 1,479	41 2,812	97 797	162 2,101	289 4,244	437 10,040	119 7,204	...	78 984	9 115	336 3,311	349 11,211	...	4,323 108,165	...	3 221	3 439	5 141	...	4,495
		66	140	11	7	112	118	4	338	478	104	651	218	10	15	4	157	5	1	3,048	49	...	1	2	1			
ANDAMANS .	10,520 {	...	...	...	...	5,827	174	261	68	32	802	725	624	1	69	4	351	1,653	1	14,199	...	...	1	71	1	485
BURMA .	14,460 {	...	14	2	4	2,023	296	507	113	115	371	1,056	565	4	16	1	130	1,498	1	10,978	9	29	...	4	...	507		
ASSAM .	1,273 {	8	3	...	...	426	38	7	7	13	21	229	183	1	17	...	29	100	...	1,316	...	2	...	10	...	68
BENGAL .	16,542 {	1,396	114	3	4	4,257	204	1,122	120	249	579	3,831	1,662	3	146	19	197	703	...	18,547	16	53	...	2	2	655		
N.-W.-PROVINCES AND OUDH	32,830 {	1,729	27	75	8	7,589	525	229	196	1,057	1,059	1,582	1,647	1	437	5	2,050	3,345	1	29,273	5	14	7	53	6	1,681		
PUNJAB .	11,894 {	523	...	11	2	5,883	83	52	56	221	585	750	1,011	...	110	6	148	2,344	1	14,676	8	...	102	...	1	366		
BOMBAY .	7,092 {	32	52	19	...	1,811	75	31	70	195	302	458	491	1	70	26	129	516	4	6,345	6	...	140	...	...	250
BERAR AND SE-CUNDERABAD.	1,432 {	38	6	1	...	268	13	4	2	28	29	49	37	...	5	5	40	78	...	851	...	...	10	...	...	26
CENTRAL PROVINCES.	5,583 {	280	33	3	3	1,592	42	47	51	133	170	759	887	2	74	39	198	575	...	6,209	3	...	19	...	1	228		
MADRAS .	8,120 {	135	4	2	...	938	29	520	114	55	317	593	91	2	39	10	37	373	1	5,585	7	123	157	1	9	223		
NON-BRITISH JAILS:—																												
Sadra .	28 {	...	...	...	...	4	1	...	...	1	1	1	1	...	...	...	2	...	14	1	...	...	...	...	...	1
Kelhapur .	163 {	...	2	...	...	76	...	8	...	9	2	50	27	...	...	...	1	4	...	198	9	...	5	...	...	7
Savantvadi .	36 {	...	...	...	...	1	...	...	...	...	...	6	...	...	...	...	...	...	12	2	...	...	...	...	...	..
Mercara .	96 {	...	...	...	1	10	3	...	...	4	4	4	9	...	2	...	3	10	...	100	2	...	1	...	...	3

* Remaining + admitted = total treated; Remaining + admitted + died out of hospital = total cases.
(a) Including the subsidiary jails, the total figures are:— Average strength. Average constantly sick. Number of deaths. Number of admissions.

GEOGRAPHICAL GROUPS.	1. AVERAGE STRENGTH.												2. CONSTANTLY SICK.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average for the year.	
GROUP I.—BURMA COAST AND BAY ISLANDS.	19,898 821	19,764 733	19,766 763	20,092 789	20,380 859	20,251 1,068	20,001 1,002	20,054 954	20,184 852	20,224 787	20,330 775	20,334 713	20,108 844	
GROUP II.—BURMA INLAND.	4,555 109	4,353 120	4,584 120	4,672 173	4,825 162	4,877 199	5,104 195	5,100 196	5,193 144	5,082 128	5,044 119	4,959 110	4,872 148	
GROUP III.—ASSAM.	1,177 62	1,141 56	1,161 58	1,176 65	1,159 75	1,212 76	1,246 73	1,297 77	1,331 89	1,353 79	1,314 55	1,260 45	1,236 67	
GROUP IV.—BENGAL AND ORISSA.	9,858 384	9,877 490	9,916 551	10,168 455	10,301 412	10,319 433	10,529 477	10,604 484	10,723 522	10,800 509	10,631 475	10,744 442	10,373 470	
GROUP V.—GANOETIC PLAIN AND CHUTIA NAGPUR.	27,292 1,479	27,052 1,464	26,881 1,566	26,688 1,401	26,664 1,257	27,372 1,324	28,380 1,453	29,616 1,564	30,521 1,540	30,324 1,339	30,317 1,283	31,032 1,302	28,516 1,414	
GROUP VI.—UPPER SUB-HIMALAYAN.	13,631 656	13,292 545	13,178 524	13,364 510	13,434 415	13,854 434	13,982 494	14,021 534	14,239 528	14,456 503	14,358 456	14,369 471	13,849 507	
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY AND N.-W. RAJPUTANA.	5,879 241	6,004 155	6,067 176	6,107 193	6,207 191	6,386 182	6,562 237	6,691 240	6,897 199	6,778 183	6,709 181	6,597 185	6,407 196	
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA AND GUJARAT.	4,916 156	4,845 132	4,745 141	4,751 159	4,732 157	4,781 172	4,858 201	5,090 212	5,139 211	5,050 206	4,915 188	4,896 192	4,894 178	
GROUP IX.—DECCAN.	9,089 355	9,039 381	8,802 316	8,901 299	9,229 287	9,547 293	9,974 356	10,330 428	10,526 482	10,686 511	10,695 400	10,673 360	9,793 373	
GROUP X.—WESTERN COAST.	2,293 59	2,330 71	2,210 72	2,156 62	2,070 57	1,937 67	1,960 91	1,983 107	2,093 86	2,181 95	2,255 92	2,310 99	2,148 80	
GROUP XI.—SOUTHERN INDIA.	7,369 209	7,440 225	7,287 214	7,245 192	7,214 173	7,151 178	7,167 188	7,193 205	7,310 216	7,344 198	7,595 213	7,685 200	7,332 200	
GROUP XII.—HILLS.	517 14	457 14	420 9	462 17	469 22	507 26	552 20	571 22	536 18	489 17	470 17	494 12	495 17	
INDIA *	106,520 4,546	105,842 4,387	105,072 4,511	105,841 4,317	106,743 4,069	108,252 4,454	110,388 4,787	112,633 5,024	114,679 4,888	114,850 4,556	114,712 4,255	115,426 4,132	110,090 4,495	

ADMINISTRATIONS.	1. AVERAGE STRENGTH.												2. CONSTANTLY SICK.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average for the year.	
ADAMANS.	10,484 469	10,515 424	10,587 442	10,575 472	10,610 553	10,536 693	10,400 580	10,305 535	10,339 462	10,447 412	10,639 382	10,794 390	10,520 485	
BURMA.	13,069 461	13,802 429	13,763 441	14,189 490	14,595 468	14,592 574	14,705 617	14,849 615	14,938 534	14,859 503	14,735 512	14,499 433	14,460 507	
ASSAM.	1,217 64	1,182 57	1,198 58	1,218 67	1,198 78	1,248 78	1,281 73	1,331 77	1,366 91	1,388 81	1,350 57	1,297 45	1,273 68	
BENGAL.	15,868 562	15,636 715	15,633 775	15,849 640	15,968 564	16,171 594	16,575 641	16,843 685	17,265 715	17,480 676	17,409 661	17,803 634	16,542 655	
N.-W. P. AND OUDH.	31,483 1,807	31,327 1,688	31,125 1,798	31,154 1,698	31,210 1,491	32,121 1,560	33,010 1,733	34,156 1,848	34,930 1,822	34,574 1,636	34,195 1,520	34,620 1,553	32,830 1,681	
PUNJAB.	11,415 484	11,343 339	11,315 334	11,344 328	11,408 333	11,648 340	11,972 423	12,269 441	12,540 385	12,543 349	12,470 325	12,454 316	11,894 366	
BOMBAY.	7,058 236	7,002 237	6,897 229	6,970 234	6,981 223	6,990 236	7,074 262	7,032 276	7,121 273	7,159 303	7,330 260	7,445 245	7,092 250	
MADRAS AND SECUNDERABAD.	1,492 38	1,451 34	1,392 31	1,377 27	1,359 19	1,335 15	1,363 22	1,407 27	1,413 24	1,477 22	1,532 29	1,594 25	1,432 26	
CENTRAL PROVINCES.	4,890 197	4,944 213	4,806 170	4,851 148	5,126 143	5,359 155	5,720 214	6,084 276	6,315 335	6,440 343	6,321 261	6,129 255	5,583 228	
MADRAS.	8,295 221	8,316 245	8,046 228	7,994 207	7,957 190	7,901 202	7,926 214	7,977 236	8,090 241	8,127 225	8,389 241	8,451 228	8,120 223	
INDIA †	106,520 4,546	105,842 4,387	105,072 4,511	105,841 4,317	106,743 4,069	108,252 4,454	110,388 4,787	112,633 5,024	114,679 4,888	114,850 4,556	114,712 4,255	115,426 4,132	110,090 4,495	

* Including Aden.

† Including Ajmere and Quetta.

PRISONERS, 1896.

TABLE XLIV.

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.
The ratios of sickness and mortality will be found in Table XLII.

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Akyab	Burma	<p>The jail was slightly overcrowded during the latter months of the year ; but this was considered insignificant by the Inspector-General. The under-trial ward was often overcrowded owing to the sudden influx of under-trials from the district. This was minimised to a large extent by transferring some of the men to the other barracks. The ventilation is too free to a certain extent.</p> <p>The drains are too shallow, and do not always work well.</p> <p>The boiling of the water was discontinued for the last 3 months of the year, as it was liable to contamination after being boiled, which could not be avoided under the present conditions. Disinfection of the wells with potassium permanganate after Hankin's method was substituted. The cost was very small.</p> <p>The malarious climate of this station is responsible for a good deal of the sickness which is prevalent. A large number of the population are confirmed opium-eaters and smokers, and a good percentage of them are admitted into the jail in an indifferent and bad state of health.</p> <p>The chief causes of the sickness are malaria, unsuitable diet (which is now changed to suit those new admissions brought to jail in indifferent health), exposure, and the water. The health of the jail has improved since the regular monthly disinfection of the wells was introduced. There were 15 admissions for dysentery with 2 deaths, and 10 admissions for fever with no death, as against 80 admissions for dysentery with 8 deaths, and 17 admissions for fever with no death for 1895.</p>
Moulmein	„	<p>There was no overcrowding. The ventilation is defective owing to the faulty construction of the dormitories and the lowness of the upper verandah.</p> <p>There are no defects in the drainage inside the jail, but the municipal drains of the outside neighbouring portions of the town are bad, though they have been slightly improved during the year.</p> <p>The surroundings of the jail are not satisfactory on account of the existence in the immediate neighbourhood of a crowded population living under insanitary conditions. There is also a crowded graveyard, still in use for burials, at a distance of 50 or 60 feet from the south wall of the jail, and at a higher level than the land upon which the jail stands.</p> <p>The site of this jail has been condemned as most insanitary, lying as it does in a hollow; and the nearness of the high jail walls to the dormitories, and especially the bad situation of the work sheds, preventing a free perflation of air, are defects calculated to exercise a prejudicial influence on the general health of the jail population.</p> <p>Out of 27 deaths in convicts no less than 15 occurred from tuberculosis, which disease attacked the lungs and intestines in nearly every instance. The disease appears in men who have been a long, as well as in those who have been only a short, time in the jail. It attacks men of hill tribes as well as Burmans. It appears to be largely due to deficiencies in ventilation, chiefly of the work sheds and perhaps to a lesser extent also of the dormitories. There were 6 deaths from dysentery, which has been less prevalent than in previous years. The disease is climatic and due to no special cause inherent in the jail. Scurvy and scorbutic ulcers occurred to a slight extent towards the end of the rains owing to a very heavy rainfall and to deficiency in antiscorbutic value of the vegetables supplied. This was met by doubling the tamarind ration and issuing extra vegetables as soon as the scorbutic taint was discovered. The disease quickly subsided after the rains. Ophthalmia has been prevalent in this jail, and it is due to the same cause as in schools in Europe, <i>viz.</i>, to the association together of a large number of people and to insufficient ventilation ; and in this instance both conditions apply, chiefly to the work sheds, combined with a bad site. The causes therefore of most of the sickness and mortality in this jail are its bad situation and the want of free perflation of air through all the parts. Cases of diarrhoea were slight and due to dyspepsia or chills. No deaths occurred from it.</p> <p>The upper block of the cells was rendered water-tight by being re-shingled.</p> <p>Recommendations were made to put a shingle or corrugated iron roof over the lower block of cells, which leaks badly in the rains; also to line with stone a large drain running through the jail land, close to the work sheds and thus to render it easier to clean. The stone has been stacked, but work has not yet been commenced.</p>
Pagan	„	<p>There was no overcrowding. Those prisoners working pumps on the river bank are provided with temporary movable sheds; those liable to get their clothing wet, such as water-carriers and gardeners are provided with an extra suit of old clothing from store to keep their clothing always dry day and night; and bamboo hats are issued to all the convicts who go out, to protect them from sun and rain.</p> <p>The river water, which is ample in amount all the year round and very pure during the cold and hot weather, is in the rainy season somewhat muddy and polluted, necessitating its being boiled and filtered before use. It is used for drinking and cooking purposes.</p>

JAILS.	PROVINCES.	Sanitary defects, improvements, suggestions, etc.
Pagan— <i>continued</i> . . .	Burma	<p>The jail well water, which is hard and contains solids in excessive quantities, is only used for ablutionary and horticultural purposes. Since 20th September 1895, the jail well water was issued to 20 prisoners (ten lepers and ten non-lepers) for drinking purposes, as an experimental measure after boiling and filtering; and at the beginning they all complained that they could not quench their thirst, and one or two of indigestion, to which, however, they may have been subject before, as most of the inhabitants of the province are subject to the disease. But afterwards they all took that water without any complaint. The well got dry in March of the year under report, and the experiment was stopped. But it will be tried again on a large scale as soon as the well is deepened and the pump is put on to supply ample water all the year round.</p> <p>Sudden changes of temperature affected the lepers in their already bad state of health, and the bulk of the sickness was among them.</p> <p>The sickness and mortality were chiefly due to the bad state of the leper prisoners' health. Of 81 treated in the hospital during the year, 69 were lepers, and only 12 non-lepers, and most of the non-lepers admitted into the hospital for treatment were brought to the jail with their ailments on them.</p> <p>It was recommended that, instead of twice weekly, meat or fish should be issued only once a week to the convicts, and that beef should not be given at all, as the lepers, who do little work, were apt to suffer from indigestion. This was carried out with good effect.</p>
Bhamo	„	<p>There was overcrowding in all the wards from May to August. The sickness and mortality were due to previous indifferent and bad health, poor physique, anæmia, excess in the use of opium, and privations incidental to climate and exposure.</p>
Sylhet	Assam	<p>No overcrowding.</p> <p>The ventilation is fairly satisfactory. There are no arrangements for cross ventilation, owing to defective construction of the wards.</p> <p>Fever was mainly due to climatic causes, the decrease in the number of admissions being mainly due to the prophylactic use of quinine and iron from the 15th May to the 15th December. The decrease in admission from bowel complaints during the year was mainly due to the use of quinine and bael fruit as prophylactics from May till December. Pneumonia was due to chill caught while in indifferent health. The cases of tubercle of the lungs were admitted into the jail in bad or indifferent health. They were always put on light work inside the jail. They probably contracted the disease before arrival into the jail, the disease developing fully under confinement.</p> <p>The Inspector-General of Jails recommended the issue to all prisoners employed extramurally and on sawing, of 11 chittacks of rice and one chittack of gram with oil; to prisoners employed on jail miscellaneous work, of 10 chittacks of rice; to each convict on return from extramural labour in the evening during the rains, of a dry suit of clothes.</p> <p>Also the Principal Medical Officer, Assam, recommended the issue of quinine and iron as a prophylactic to all the prisoners from the 18th of June, and the supply to them of vegetables having distinctly antiscorbutic properties.</p> <p>The recommendations have been carried out.</p> <p>The jail hospital building should be improved: it should be made <i>pucca</i> throughout. It has at present <i>ekra</i> walls, mud plastered, with corrugated iron roofing. The place gets very warm during the day time from May till October, and very cold in the night time from November till March. These extremes of temperature affect the health of the patients injuriously.</p>
Silchar	„	<p>Overcrowding lasted from 17th April to the end of the year, owing to one of the convict wards having been blown down by a storm during the month of April, and not having up to date been rebuilt.</p> <p>The remarks made in former years as regards conservancy hold good. The excreta from the jail are still buried. They should be burnt in the incinerator, which is now in working order.</p> <p>Under-trial prisoners should and might be cleaner in their clothing and persons.</p> <p>Proper means should be taken to keep the tank used for cooking and drinking purposes from being used for bathing in.</p> <p>The general site of the jail on a high <i>tila</i> with a stony soil renders the place healthy in spite of the known malarious climate of Cachar.</p> <p>The prevailing diseases amongst the prison population were dysentery, ague and diarrhœa, due to climatic causes. Of the men affected, most were suffering from the diseases on admission into jail. They are usually coolies of poor physique, and have often been deserters living any how and any where, and half starved. There is no overcrowding.</p>

PRISONERS, 1896.

TABLE XLIV—continued.

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XI.II.

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Gauhati	Assam	<p>The drainage is not, owing to the low lying situation, very satisfactory. The drainage has been improved, and extended during the year. It is proposed to make <i>pucca</i> saucer drains throughout. This would to some extent render the drainage more efficient than at present.</p> <p>An extra allowance of jail vegetables with salt and oil was sanctioned and issued from 7th September 1896. Since 16th December 1896, an extra morning meal of 2 chittacks parched gram has been issued to all extramurally employed. The labour at no time has been severe, though prisoners employed extramurally are more exposed than others, especially those employed in the <i>paddy</i> field. This cultivation is now stopped.</p> <p>The surroundings are fairly healthy. On one side there is a large <i>jheel</i>, and the country generally is low lying, and the drainage inefficient during the rains.</p> <p>The chief forms of sickness during the year were diarrhœa, dysentery and malarial fever in its different forms, including enlarged spleen. April, May, June, July and August were the unhealthy months.</p> <p>The causes which gave rise to this excessive sickness and mortality during the year were the following:—Want of medical supervision, and employment without proper selection of prisoners for extramural labour during March, April and May, when the jail was without the services of a Civil Surgeon; the fact that prophylactic treatment by quinine and sulphuric acid was commenced too late in the year, <i>viz.</i>, in July; exposure during the rains of prisoners working extramurally, and especially of those employed in the <i>paddy</i> fields, at a distance of 2 miles; in some cases insufficient diet, in others improper diet in the shape of unripe fruit, mangoes, etc., which prisoners employed extramurally managed to get hold of; inadequate drainage, so that the jail site is water-logged during the rains.</p> <p>The following recommendations were made during the year :—</p> <p>That prisoners engaged on extramural labour should be allowed an extra meal in the morning, and that the same might be given in other cases, such as loss of weight, at the medical officer's discretion; that all prisoners should be allowed extra vegetables from the jail garden, with oil and salt for cooking the same, etc.</p> <p>Though there was a very high mortality, the general health of the jail improved during the last four months of the year; and there is hope that the mortality will be much less during 1897, as only the fittest prisoners, and those who have completed one year's imprisonment, will be sent out to extramural labour, and these will receive the extra morning meal of 2 chittacks parched gram.</p>
Sibsagar	„	<p>There was overcrowding generally in March, June, August and October.</p> <p>The principal diseases were ague and bowel complaints. Ague was mainly due to climatic causes, and dysentery and diarrhœa occurred mostly amongst the ill-fed coolies sent to the jail in bad and indifferent health. A few cases could be attributed to insufficient supply of opium to the habitual opium-eaters as well as to climatic changes and errors of diet.</p> <p>Recommendations were made as to arranging for the proper supply of animal food and milk and as to relieving overcrowding.</p> <p>The recommendation for supplying animal food was not carried out. This was an exceptionally unhealthy year for this jail population; but the epidemic of dysentery was also prevalent among the civil population of the town.</p>
Dhubri	„	<p>Overcrowding lasted for 112 days in seven months. Tents were used in the jail enclosure both day and night.</p> <p>The sickness and mortality were either directly or indirectly due to malaria in almost all the admissions.</p> <p>At about 2 P.M. on 14th February an under-trial prisoner was admitted into the jail, and before 3 P.M. he was found to be in a state of collapse. He was as soon as possible removed to the cholera hospital, which is a mile and a half from the jail, and here he died on the 19th. It was reported that this man had been purged three times just before his admission within the jail enclosure, whilst confined in the police <i>thanah</i>. He had been arrested from amongst the emigrants about 3 P.M. in the previous evening at a time when cholera was known to be very prevalent among them.</p> <p>The only case of cholera among the convict prisoners occurred on 21st March, when cholera was prevalent in the town, and it terminated fatally next day.</p>
Nowgong	„	<p>No overcrowding.</p> <p>The drainage is somewhat defective in being only earthen, and in the outfalls being not of sufficient slope. Masonry drains are required in places.</p> <p>The present wooden platform cover of the well in the jail compound is old, the joinings of the planks are rather open, and thus allow drippings to fall back into the well. A masonry platform cover with trap door is required to remedy this.</p>

JAILS.	PROVINCES.	Sanitary defects, improvements, suggestions, etc.
Nowgong— <i>contd.</i>	Assam	<p>A good pump with filter reservoir would be a very necessary improvement. Better means of storing water for bathing is required. These requirements were noted in the sanitary sheet for 1895. Arrangements are now being made to carry out some of these works. The drainage of the town is still somewhat defective in parts. Bowel complaints were in some cases caused by deprivation of the accustomed opium supply, and in others by intestinal worms, which are extremely prevalent amongst all classes of the population; and also occurred as secondary affections, or from a bad state of health.</p> <p>Respiratory affections were caused through chills. Wounds were caused through the carelessness of the prisoners themselves while at work. Malarial fevers are common amongst the free population of the district, and those who had previously suffered from such attacks were more susceptible to climatic influences, exposure at work, etc. Ankylostomiac <i>kala azar</i> having been very prevalent for several years amongst the district population, in some instances persons suffering from this disease were admitted into the jail. Ankylostomiasis anæmia is due to the presence of the <i>dochmius duodenalis</i> in the intestinal canal.</p> <p>A scorbutic tendency was due to a defective supply of vegetables for a time. In a general way weak constitutions, vicious habits, mental anxiety, deprivation of home comforts, etc., were more or less factors in predisposing to ailments.</p> <p>Recommendations regarding drainage, vegetables and antiscorbutics, ventilation, clothing, dieting etc., were made during the year.</p>
araset	Bengal	<p>Overcrowding existed during various short periods in May, June and October.</p> <p>The surroundings of the jail are very defective. Besides the very defective drainage and conservancy of the town and adjacent villages, there is an extensive rice-field close to the jail towards the south, which is a permanent source of nuisance for the jail; the field being used by the people of the bazar for purposes of defæcation morning and evening throughout the year. The land being private property, nothing can be done to improve the condition, unless and until it is acquired and added to the jail garden.</p> <p>Malaria and low vitality are the principal causes of sickness and mortality of this jail. Besides, exposure to the heat during the summer, to the cold during the winter, and to the damp weather during the rainy season have much to do with the sickness and mortality. The sudden change of habits as regards food, clothing, bathing and sleeping are the principal causes of dysentery in jail.</p> <p>A new boiler, as well as a cooking range of the Alipore Jail pattern, has been introduced. Two tanks have been re-excavated, and a Norton's tube-well has now been driven in. The surface drainage of the jail has also been improved. The floor of the cook house has been cemented.</p> <p>The following recommendations have been made :—</p> <ol style="list-style-type: none"> (1) To cement the floor of the hospital wards. (2) To open holes for ventilation in the roofs of the sleeping wards of the second floor. (3) To substitute white washing of the lower halves of the walls of the sleeping wards for mud <i>leaping</i>. (4) To re-excavate the big tank which supplies water for drinking and culinary purposes. This work has already been taken in hand, etc., etc.
Palamau	„	<p>There was no overcrowding. The ventilation is very defective. It has already been pointed out that the enclosure wall on the back side being so close to the barrack on the north, being only at a distance of 30 feet, and rising up to the top of the windows, interferes with the thorough perfilation of air. Roof ventilation is carried on by a series of circular openings in the upper part of the wall enclosing the barrack. The disadvantage of having fixed venetians for the barracks has been, to a considerable extent, removed by providing bamboo <i>tatties</i> for every alternate window at night to keep the inside temperature equable. The <i>tatties</i> are removed during the day.</p> <p>It has been noticed at night (after the prisoners had been inside for two or three hours) that the state of the barracks was good, and the air inside sweet, and the roof ventilation carried on perfectly well.</p> <p>The water-supply is sufficient.</p> <p>Water has been sent to the chemical examiner for analysis, but the result is not yet known. The water is boiled in the patent boiler and when cooled is given out for drinking. Arrangements are being made to fix a pump to the well and to re-arrange the boiler and filtering apparatus, which, it is hoped, will be completed this year. The water was examined for bacteria and about 60 microbes were found in the boiled water and about 180 in the well water in a cubic centimetre.</p> <p>The water contains glistening particles of sand or mica, seen when the glass is held against the sun, which, it is feared, are a potent cause of bowel complaints inside the jail.</p> <p>The jail building is on an elevated site surrounded by low-lying paddy land, which as a matter of course is more or less malarious.</p>

PRISONERS, 1896.

TABLE XLIV—continued.

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.
The ratios of sickness and mortality will be found in Table XLII.

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Palamau—continued . . .	Bengal	<p>There were two epidemics last year, one of measles and the other of influenza following close upon one another, and affecting the general health very injuriously. Besides these, the state of the jail was very unhealthy all round the year; this was not owing to any special cause of sickness arising inside the jail, but to the bad state of health in which the prisoners were admitted. Out of 640 admissions into jail during the year, 320 were admitted in bad and indifferent health, and 19 were admitted directly into hospital. The complaints were chiefly enlarged spleen, anæmia, fever, diarrhœa and dysentery, all arising from saturation of the system with malaria. Much of the unhealthiness was due to deterioration of health of the men from the scarcity and dearness of provisions outside the jail. The number of deaths was 8; all the men, except one, having been admitted in bad or indifferent health, and having died within 19 days of their admission. There was a sameness in their history, malaria always forming the basis. Great care was taken of, and special arrangements of food and nourishing diet were made for, those weakly prisoners.</p> <p>An ablution platform has been provided for the convicts. The ventilation of the hospital and cell has been improved by opening out two large windows admitting air and light. Raising of the partition wall of the female ward has been carried out. Raised earth-beds were provided for in all the barracks. A night latrine has been provided for in the hospital.</p>
Malda	"	<p>No overcrowding.</p> <p>The town is badly drained and unclean; and perfusion of air is not free, on account of thick mango groves all over the town.</p> <p>The sickness and mortality were chiefly due to ague and its sequelæ, bowel complaints, which are more or less influenced by the opium eating and smoking habit which is very common here. The following recommendations were made during the year :—</p> <p>To give grating ventilation to ward No. 1 and the hospital; to improve the ablution platform; to deepen the jail well with a view to improving the quality of its water; to give <i>gumla</i> ventilation to the old and new under-trial wards; and to provide a water-supply from the river by means of pipes.</p>
Purneah	"	<p>There was slight overcrowding in the convict ward for a week.</p> <p>The sickness has mainly been due to malarial fever, dysentery, diarrhœa and respiratory diseases. These have all probably been influenced by climatic conditions and sudden changes of temperature.</p> <p>Extra food, in the shape of milk, fish, and meat, was issued to the old and weakly prisoners.</p>
Jalpaiguri	"	<p>No overcrowding.</p> <p>In all cases, the causes of sickness and mortality have been due to malaria, added to poor means of living; giving rise to anæmia and subsequent organic diseases.</p> <p>The following improvements were effected during the year :—</p> <p>Two thatch and mat wall huts were erected for the treatment of cholera and infectious diseases.</p> <p>The right half of the main barrack was plastered, half inch thick, of sand and cement, to prevent dampness from entering the building, etc., etc.</p> <p>During the winter months, four blankets per prisoner were issued, blanket coats and <i>jungheas</i> and cap. The iron drinking water casks are washed and scrubbed weekly, and inspected by the Superintendent.</p>
Dinajpur	"	<p>Overcrowding lasted for two days in one ward only during the month of November.</p> <p>The work shed was converted into a sleeping ward when a large increase was made to the jail population by transfers from other jails. It is being used at night as a sleeping ward since 4th October.</p> <p>Fevers and dysentery were the prevailing diseases, and were much more common this year than last. The district suffers much from malaria, and to this cause are those diseases due. This year a great number of prisoners were received into the jail from other and healthier districts, and they suffered much after their arrival.</p>
Rangpur	"	<p>No overcrowding existed during the year.</p> <p>Ventilation could be improved by upper openings.</p> <p>Drainage is fairly good, but the fall obtainable is very small.</p> <p>The tasks are all lighter than those laid down in the Jail Code, according to instructions of the Inspector-General of Jails No. 8018 of 30th July 1891, and No. 5277 of 23rd March 1894.</p> <p>A great deal too much jungle is allowed to grow for miles around the jail.</p> <p>The very name of Rangpur is associated with malarial fever and its congener dysentery.</p> <p>It is impossible to point out the <i>vera causa</i> of the sickness and mortality, but it is considered to be a part of the general</p>

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Rangpur— <i>continued</i> . . .	Bengal	<p>unhealthiness of this malarial district. Inside the jail there is nothing to which the sickness can be traced.</p> <p>The following recommendations were made during the year :—</p> <p>To improve the state of the filter and sink a tube well alongside of it; to put up the Alipore pattern cooking range; to construct a <i>pucca</i> latrine inside the jail; to construct cage latrines in the sleeping wards; to improve the condition of the drains and well of the jail, etc.</p>
Backergunge . . .	„ . . .	<p>Overcrowding lasted for 13 days, but it was relieved by using work sheds at night.</p> <p>Water for drinking and culinary purposes is obtained from a reserved tank attached to the jail. Drinking water is thoroughly boiled and filtered before issue.</p> <p>The sickness was due to the general unhealthiness of the district, especially in 1896.</p> <p>A feeding platform with shed is absolutely necessary in this jail, as the prisoners are exposed to both rain and sun at the time of feeding.</p>
Tippera . . .	„ . . .	<p>There was overcrowding during the greater part of the year in the <i>hajat</i> ward, but the excess number of under-trial prisoners was removed and accommodated in one of the empty ground floor wards.</p> <p>The lower wards are all badly ventilated. This has been represented.</p> <p>The latrine accommodation is insufficient and too near the sleeping wards. A temporary latrine was put up in the corner of the garden for outside gangs, to relieve the inner latrine.</p> <p>The water-supply is obtained from <i>Dharma Sagor</i> tank. The transit from the tank to the jail, and the means of obtaining the water, were not very satisfactory. A boiler is also urgently required.</p> <p>Up to date the water has been boiled in <i>degchies</i> or iron utensils.</p> <p>The wards on the ground floor are all damp, gloomy and badly ventilated. The jail enclosure is too small. Extension of the enclosure walls in all directions is being carried out at present.</p> <p>The increased sickness and mortality, especially from dysentery, have been due to the unhealthiness of the year (especially marked in Tippera town), to the admission of many prisoners in bad or indifferent health, and also to some extent, to the occupation of the lower, or groundfloor, damp and ill-ventilated wards.</p> <p>The ground floor wards were made more suitable for occupation by cementing their floors. The fixed and closed south windows of the hospital ward were opened out to admit more light and air.</p> <p>The following recommendations were made during the year :—</p> <p>Removal of the sick from the hospital ward and from the lower ground floor ward (which was used as a hospital for dysentery and diarrhoea cases) to the general ward; and transfer of the excess number of prisoners (excess over 179) to other jails to keep down the population to 179.</p>
Chaibassa . . .	„ . . .	<p>Overcrowding lasted for a few days at a time in April, May, July, August, September, October and November.</p> <p>There is over-ventilation. A large weekly market, which thousands of villagers attend, is held immediately outside the jail on its west and north-west sides.</p> <p>Owing to the extremes of temperature between the cold season and the hot season, the want of verandahs to the wards is much felt. Many prisoners are received here in a very sickly state, chiefly due to want of nourishment.</p> <p>The filtering water tanks were provided with tin roofs to keep the water free from dust and exposure. A <i>pucca</i> drain was built running from south to north on the east side of the jail to pass off refuse water from the cook-shed and washing platform.</p> <p>The following recommendations were made during the year :—</p> <p>To make the floor of the work-shop damp proof; to construct a new latrine, and a verandah to the western side of the barracks; and to provide a Pasteur-Chamberland filter, etc.</p> <p>It is desirable that a place be set apart, fitted with doors, adjoining the sleeping wards, for placing the urinal and night-soil tubs at night; so that no smell can pass into the sleeping ward. As the construction of a verandah is under contemplation for protecting the wards from sun and rain, it should be so made that both the purposes be served.</p>
Buxar . . .	„ . . .	<p>Although in the earlier months of the year the number of prisoners in jail sometimes exceeded the capacity of the jail, there was practically no overcrowding in the sleeping wards, as the convict guards occupied the verandahs outside.</p> <p>The sickness and mortality were due to natural causes. Diseases were induced often by indiscretion in food and by exposure to heat and cold. The constitutions of certain prisoners, rendered feeble by old age and previous ailments, were in some cases an easy prey to sickness.</p> <p>The walls of the sleeping wards were whitewashed with lime and the sleeping with earth which was previously in vogue discontinued.</p>

TABLE XLIV—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Buxar— <i>continued</i>	Bengal	<p><i>Pucca</i> platforms were built near the ejector truck for the reception of latrine baskets and urinals, thus avoiding the possibility of any urine or other dirty liquid permeating the soil near the place. The issue of a cotton sheet to each prisoner in addition to the clothing allowed under jail rule was recommended and allowed. An issue of meat, 2 chittacks per prisoner for two days in the week, in lieu of a similar quantity of <i>dal</i> was made from 11th June to 11th December 1896, and it was continued once a week for the rest of the year.</p>
Champarun	"	<p>Overcrowding lasted for altogether 11 days in August, September, November and December.</p> <p>There was overcrowding in the female and under-trial wards. This was relieved by using the juvenile ward for females, and the convict ward for under-trials in addition to their own wards.</p> <p>No ventilation near the roof. All ventilation is by the windows and doors.</p> <p>Outside the jail the drain water was received into a <i>kucha</i> drain, which could not be kept clean. A new <i>pucca</i> drain has been made, remedying this defect.</p> <p>The jail is near the unhealthy Dunowtri tract.</p> <p>Most of the cases of dysentery were in men who had been recently admitted into jail. The under-trials suffered more in proportion than convicts from this disease. So it is probable that the sudden change in the habits and food of the newly admitted prisoner was responsible for a great part of the sickness. Many prisoners on admission had a distinct dysenteric history. A proportion of the cases of diarrhoea was caused by eating irritating substances: thus one man passed through him half a seer of <i>soorkhi</i>. When cinchonidine was given regularly in October, there was an increase in diarrhoea cases, which the prisoners attributed to the cinchonidine. Malarial cachexia and anæmia were not contracted in the jail. The ague attacks seemed for the most part to be dependent on chills. There was not at any time any seasonal epidemic of the disease.</p> <p>The following improvements were effected during the year:—</p> <p>Erection of a Pasteur filter, with pumping and distributing arrangements; erection of a cowshed inside the jail, thus allowing the verandahs of the wards, which had had to be used for this purpose, to be kept clean; construction of a <i>pucca</i> drain outside the jail wall, allowing the drainwater to be carried clear of the jail premises; and continuation of it by a <i>kutchra</i> drain with a proper outfall into the lake; fitting the windows and doors of the female and juvenile wards with venetians. (Formerly they could not be kept warm in the cold weather); providing a proper supply of dry earth for the latrines, and stopping all leeping of them.</p> <p>Plans and estimates have been submitted for providing the sleeping wards with proper ventilation, and for the construction of new ablution platforms to all the latrines, with proper catchment arrangements outside the jail walls.</p> <p>Records of the level of the water in the lake near the jail, and of the ground water in the jail were kept from the 11th July. The water in the Champarun lake was 1.77 feet higher than the ground water in the jail. Owing to the deficient rainfall, the highest rise in the lake was only about a foot, and the ground water 15 inches. So that the actual effect of a rise in the level of the water in the lake on the level of the ground water at the jail could not be determined. The observations will be continued.</p>
Darbhanga	"	<p>There was general overcrowding of all the wards during a great part of September.</p> <p>The female ward was overcrowded from the 13th to the 17th October, and from the 13th to the 23rd November. The male wards were overcrowded from the 1st to the 5th October, and the <i>hajat</i> ward on the 2nd, 9th, 10th, 12th, 14th, 15th and 28th of December.</p> <p>The drains outside the jail walls, which carry away the sullage from the jail, are <i>kutchra</i> ones, and ought to be made <i>pucca</i>. They also empty themselves into a tank at the north-east corner of the jail; which is a great sanitary defect, as the tank is always foul and is a constant nuisance.</p> <p>The sickness and mortality have been due to cholera and diarrhoea, both of which have been very prevalent. The first case of cholera was traced, the affected prisoner having drunk water from a tank which on examination was found to be swarming with <i>comma bacilli</i>. Thirty cases occurred in all, of which 6 were fatal. Dysentery has again been very prevalent, 137 cases having occurred during the year; but it is satisfactory to report that none of them were fatal. There has been a marked immunity from the diseases attributable to malaria—ague, remittent fever, and malarial cachexia, and from tuberculous diseases.</p> <p>It was recommended every month that the outside drains referred to above should be improved by being made <i>pucca</i>, and that the sullage should be conveyed away from the jail precincts; but no action has been taken in the matter. The erection of a solitary</p>

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Darbhanga— <i>continued</i> . . .	Bengal	<p>cell for female convicts (there being none at present) was also strongly recommended, and the subject is under consideration. There was a decided tendency to scurvy amongst the prisoners, more especially among those admitted to the jail in November and December—a fact due probably to the prevailing scarcity. Special measures were taken (by placing into a separate gang all the prisoners thus affected) to treat the sufferers medicinally and dietetically, the result being eminently satisfactory.</p>
Chapra	„	<p>No overcrowding.</p> <p>Perflation of air is defective in the female <i>hajāt</i> wards and hospital owing to high surrounding walls, and the yards being too small; and in the convict wards from their being too much crowded together.</p> <p>Drainage fairly good within the jail, but rendered defective and liable to flooding in the rains from the town drainage in the neighbourhood being bad, and from the conformation of the surrounding country.</p> <p>Water is brought from a good well outside the jail, and regularly boiled, filtered and disinfected.</p> <p>The jail is surrounded by filthy bazars on three sides, and there are several bad tanks near the jail. The drainage of the town in the north and east is very bad.</p> <p>The jail site is an old one, which has been occupied as a jail for over 70 years, with bad water, pronounced unfit for drinking purposes by the chemical examiner, in its wells; and the water for drinking purposes has been brought from outside. The buildings are antiquated and tumbledown, and not up to modern ideas. The district is excessively cultivated, over irrigated, badly drained, and liable to flooding.</p> <p>The district has been very unhealthy for the last three years, and for the last two years 48 per cent. of the prisoners have been admitted in bad health: 85 per cent. of those who died were in bad health on admission, and 38 per cent. were over 45 years of age. The site of the jail is insanitary, in the midst of a bazar, with bad water on it. The surrounding drainage is bad, and insanitary tanks are within 30 yards of the jail walls.</p> <p>The main jail drain has been made <i>pucca</i> to a distance of about 80 yards from the jail. The latrine accommodation has been enlarged by 20 seats, and ablution platforms have been improved and provided with good iron tanks and pipes with cocks for ablution purposes. The population has been kept down as far as circumstances would admit to as near 200 as possible.</p> <p>In the month of July a committee consisting of the Inspector General of Jails, and the Civil Surgeons of Patna and Chapra, met at Chapra to consider the state of health of the jail, and they recommended that this jail should be vacated, and a new jail built on a good site; and the question is now under the consideration of Government.</p> <p>Of the 13 prisoners who died, 10, or 77 per cent., died of dysentery, of whom 8, or 80 per cent., were in bad health on admission to jail; one was in indifferent health and one in good health, and all had suffered at some time from dysentery outside the jail. Anchylostomiasis, causing anæmia and debility with bowel irritation, was frequently observed with dysentery, as was also the presence of <i>ascaris lumbricoides</i>. This combined with grave malarial cachexia has been the cause of most of the sickness and mortality in the jail this year.</p>
Benares District	N.-W. P. and Oudh	<p>Overcrowding lasted for about four months.</p> <p>The surplus prisoners were locked up at night in the old hospital building.</p> <p>The sickness and mortality appeared to have been chiefly due to the bad state of health of the prisoners on admission to jail and not to any sanitary defects.</p>
Chunar	„	<p>No overcrowding. The sickness and mortality were due to the admission into the jail of the old and infirm prisoners and of men with chronic diseases.</p> <p>The following improvements were effected during the year:—</p> <p>The water-supply taken from a greater depth in the river; a vegetable garden established; and the ventilation improved, etc., etc.</p>
Mirzapur	„	<p>The jail was overcrowded almost throughout the year. All the wards were overcrowded more or less.</p> <p>Tents were used when necessary. The defects pointed out in the drainage last year have been remedied.</p> <p>The sickness and mortality were generally due to the poor physique and the wretched state of health of the prisoners admitted into jail during the year.</p> <p>The main drains in the jails have been properly levelled.</p>
Azamgarh	„	<p>Overcrowding existed throughout the year to a varying extent. The crowding was chiefly amongst the convicts, but it also occurred amongst the under-trial prisoners towards the end of the year.</p>

TABLE XLIV—*continued*.

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Azamgarh— <i>continued</i>	N.-W. P. and Oudh	<p>The female ward was habitually overcrowded. The great majority of the convicts confined in this jail were imprisoned for short terms, which circumstance precluded much relief from transfers, although 462 prisoners were thus disposed of during the year.</p> <p>Work sheds were constantly in requisition to accommodate the overflow of the prisoners by night.</p> <p>The solitary cell corridor and the hospital verandah were also used for this purpose.</p> <p>Tents were temporarily used during the hot weather.</p> <p>All drinking water was boiled before issue to the prisoners, and the very appreciable decrease in the mortality from bowel complaints may be reasonably attributed to this precaution. But a more extended trial of boiled water is necessary before this surmise can be accepted as a fact.</p> <p>As the jail wells showed signs of failure, owing to the very scanty rainfall in the month of October, it was recommended, with a view to improving the supply, that the level of the River Tons should be raised by building a weir across it. This was done in November with a very gratifying result upon the wells in the jail and the city.</p> <p>The immediate surroundings of the jail are gardens and fields; but the outskirts of the town are only a few hundred yards away and closer to the jail than is desirable.</p> <p>The water of the jail wells having been condemned (with the exception of that of one well) by the chemical examiner, a water boiling apparatus was erected and kept in constant use.</p> <p>The chief cause of the sickness and mortality was the bad state of health of many of the prisoners upon admission into the jail. The district being in a state of famine, the general physical condition of the people was reduced to a low ebb; and of 3,989 prisoners of all classes who were admitted into the jail, 272 were received in bad health and sent at once to hospital, while 576 were in indifferent health and were admitted into the infirm gang from which many were later on received into hospital. Of the 23 prisoners who died 15 came to jail in bad health, and 3 in indifferent health, while 5 only were in good health on admission into the jail. On the whole, however, the mortality in the jail was less than that of the previous year by 5 deaths.</p> <p>The jail was secured against the risks of floods by the erection of the river protective <i>bund</i>, which now encircles the city and part of the civil station of Azamgarh.</p> <p>It is interesting to note that, notwithstanding the larger population of the jail during 1896, and the great scarcity and agricultural distress prevalent in the district, the mortality was considerably less than during the previous year. There can be no doubt that the year was generally more healthy than the previous one, and this appears to have been mainly due to a decreased prevalence of malarial fevers and of bowel complaints.</p>
Gorakhpur	" "	<p>There was no overcrowding, as the old jail and two workshops were utilised for those who could not be accommodated in the barracks. Of the workshops, one was used for a greater part of the year, and the other for a few months only.</p> <p>The sickness and mortality were chiefly due to the bad health of the prisoners on admission into the jail. Out of 628 convicts admitted to hospital during the year, 340 were admitted directly on their admission to jail. Debility, dysentery, enlargement of spleen, ague and dochmias duodenalis were the chief diseases causing admissions to hospital, and dysentery, influenza and tubercle were the chief diseases causing death. Nearly all the cases of debility, enlargement of the spleen and dochmias duodenalis were amongst the prisoners newly admitted to jail who had to be sent directly to hospital.</p>
Basti	" "	<p>Overcrowding existed during the first and second quarters of the year. Tents were erected inside the jail for the number in excess.</p> <p>The principle admissions into hospital have been due to ague and bowel complaints, which are also prevalent in the district.</p> <p>The increased number of admissions into hospital as compared with the preceding year is due largely to the fact that more than half the convicts who were admitted into the jail were either in bad or indifferent health on arrival.</p>
Gonda	" "	<p>Overcrowding existed continuously from April to August, and at intervals during the remaining months, except March and November.</p> <p>The corridor of the solitary cells and the workshop were used as sleeping barracks, but not utilised during the day.</p> <p>The sickness and mortality were chiefly due to the admission into jail of a large percentage of the prisoners in bad and indifferent health; and to the confinement of the <i>burwars</i>, a criminal tribe, from all parts of India, in this jail: one-third of all the deaths usually occur in this cast alone.</p>
Bahraich	" "	<p>Overcrowding lasted for 181 days during the year, and it occurred in all the barracks, except the hospital proper.</p> <p>Tents were pitched for the number in excess.</p>

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Bahraich— <i>continued</i>	N -W. P. and Oudh.	<p>The year has been unhealthy on account of malarial diseases and dearness of food stuffs.</p> <p>The main causes of sickness and mortality were due to malarial influences. The Bahraich district is a malarious one in the <i>terai</i>, and the soil is damp and moist during the greater part of the year. The diseases causing death did not appear to be due to any of the circumstances necessitated by residence in the jail, such as diet, clothing, etc.</p> <p>Two well-made <i>pucca</i> drains were constructed outside the jail to carry off the refuse water from inside the jail.</p>
Fyzabad	„ „	<p>There was slight general overcrowding from 7th August to 3rd September, owing to the arrival of large batches of convicts on transfer from other jails.</p> <p>A building in the outer enclosure, usually devoted to the manufacture of matting, was used as a sleeping barrack only, when the pressure of population was marked. Other convicts were accommodated in the corridors of the solitary cell barracks, and by even distribution the crowding was reduced to a minimum.</p> <p>The sickness has been chiefly due to seasonal and climatic causes, and to those local and trifling ailments for which no special reason can be assigned. Epidemic disease also accounted for some of the sickness, 55 prisoners having been admitted for influenza, and 5 for cholera. Four of the deaths returned under pneumonia were due to that disease complicating influenza. Three deaths were due to cholera. Six deaths occurred from dysentery, and of the six men, four were received into the jail in bad or indifferent health. Under other heads the mortality was very trifling and in the great majority of cases was due to disease contracted before admission into the jail.</p> <p>Four night latrines were constructed in as many barracks. The solitary cells in the female prison are now in course of reconstruction on a new and approved plan. A Horbury's patent privy has been put up in the female enclosure.</p> <p>The great majority of the prisoners improved in health and weight during their term of imprisonment.</p>
Orai	„ „	<p>The jail was slightly overcrowded during the winter months only, chiefly in the under-trial wards.</p> <p>The sickness and mortality were chiefly due to climatic causes and to the prevailing scarcity.</p>
Banda	„	<p>From 3rd to 19th August the population was 343, and from 29th October till the end of the year it has remained over 335, the sanctioned capacity. This has been due to increase of crime. The number of sessions under-trial prisoners has been especially high. Frequent drafts to central jails have occurred.</p> <p>In this famine time a rice gang has been instituted for new arrivals unable to assimilate the usual diet.</p> <p>Water is abundant and wholesome. Sand filtration has been done away with, as no practical difference was found to result from it. The water is drawn from a well-constructed and deep well in the centre of the jail. Magnesium salts are said to be proportionally high in the total solids. From the point of view of the native the water is also good.</p> <p>There is a very distinct local cause of disease, <i>i.e.</i>, famine over the whole district. In 1895 the deficient rainfall was said by Dr. Baker to have been decidedly beneficial to the general health of the district. But signs of want occurred and the health of 1896 must be influenced unfavourably. The health of the prisoners continued very good until September. The rains again failed, and the fever-rate fell lower even than in 1895, exceptional though that year was. But distress followed the setting in of famine, and the sick-rate and the death-rate increased very much. Dysentery and diarrhœa prevailed amongst the new admissions. For the last six weeks influenza has been rife, and almost constantly associated with pulmonary complications. When these both passed away diarrhœa set in. It had a most disastrous effect on the health of those admitted. They lost weight and became anæmic and feeble.</p> <p>The main cause of ill-health is still malaria, though to a diminished extent. It was only accountable directly for one death. An epidemic of influenza was prevalent from November, and occasioned two deaths amongst 28 cases. In contrast with last year diseases of the respiratory system have been rife, 45 cases and 6 deaths (2 from phthisis). This is significant of influenza, which must partly have caused this increase. Dysentery and diarrhœa occasioned 6 deaths in 73 admissions. All these deaths have been in the latter part of the year and amongst the new admissions. These are mainly the famine-stricken.</p> <p>Oil and salt were increased from 11th July, and this has had a good effect on the health of the prisoners; and complaints, which were frequent before, have ceased.</p>
Allahabad District	„ „	<p>There was overcrowding in the jail from the 1st of January to the 29th of April.</p>

PRISONERS, 1896.

TABLE XLIV—continued.

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.
The ratios of sickness and mortality will be found in Table XLII.

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Allahabad District—continued	N.-W. P. and Oudh.	<p>The amount of oil and <i>ghee</i> given with the food was insufficient up to July, when the quantity of these substances was increased four-fold. At present the diet is excellent, and far better than nine-tenths of those admitted can get in their own homes.</p> <p>The great increase in the number of cases of pneumonia was due to influenza being epidemic, though no doubt the overcrowding of the jail injuriously affected the prisoners and rendered them liable to pulmonary complaints. Sixty cases were admitted for erysipelas with one death. Every care was taken to prevent the occurrence of this disease, but so far without success. Two of the four cases of cholera were admitted with the disease, and two cases occurred in the jail. There was no connection between the cases that were brought in and those that occurred in the jail. Cholera was epidemic in a village not quite 200 yards from the jail.</p>
Muttra	" "	<p>There was overcrowding for four days in all the barracks of the main prison.</p> <p>The ague and dysentery cases can only be attributed to the climate. The local surroundings of the prisoners in the jail are good. The cases of enlarged spleen can also be attributed solely to the climate. Sixteen of the admissions were due to venereal disease contracted before the prisoners came to jail. The mortality was high during the year; but this is in no way attributable to jail life as of the nine prisoners who died during the year, only two were in good health on admission, and three were moribund when admitted to jail.</p> <p>Recommendation for a new surface drain to carry off water from the bathing platforms, etc., will be submitted.</p>
Shahjahanpur	" "	<p>There was slight overcrowding throughout the year. A part of the factory shed was occupied for a few days to relieve overcrowding until transfer.</p> <p>Clothing good and sufficient on the whole for the accommodation of 324 prisoners, including civil and under-trials, but the average during the year has been 419.52, and for this reason the clothing has been somewhat defective during the latter part of the year.</p> <p>The sickness and mortality were due to the debilitating effects of influenza and consequent greater prevalence of respiratory diseases; to the increased number of admissions into the jail in poor health, due probably to the prevailing scarcity; to climatic causes; and to the admission into the jail of men suffering from mortal disease.</p> <p>Three new bathing platforms have been completed, and two others are in course of construction. A new latrine has been added to the hospital, and a separate cook-house for the hospital patients has been built.</p> <p>Recommendation has been made for the construction of an additional barrack for under-trial prisoners; as the present barrack is not sufficient.</p>
Bareilly District	" "	<p>No overcrowding.</p> <p>Influenza appeared in the jail during the month of February, and raged for six weeks. At the same time it was also prevalent outside, and numbers of Europeans and natives suffered. All the cases of pneumonia were directly due to that complaint. The large number of admissions from ague was principally due to the malaria-stricken condition of the prisoners admitted from Pilibhit and the <i>terai</i> districts.</p>
Saharanpur	" "	<p>All the barracks were more or less overcrowded for 70 days during the year.</p> <p>Barrack No. 8, which was formerly a factory, was badly ventilated for part of the year, but nine iron gratings were put in, and the ventilation is now good.</p> <p>The district is a very malarious one, and prisoners bring in this disease with them.</p> <p>Out of a total of 438 admissions to hospital, 177 were for diseases of malarial origin, 43 were due to diarrhoea caused in several cases by prisoners eating the <i>atta</i> from their mills. Dysentery caused 18 admissions; <i>dochmius duodenalis</i> 17; pneumonia 39, due to exposure to cold.</p> <p>A new hospital was recommended, the old one being badly ventilated and dark. A factory has now been taken for a hospital, and a verandah is to be put round the building. When a good brick on edge floor is put down, this should be a very fair hospital for the jail.</p>
Dehra Dun	" "	<p>There was no overcrowding at any time during the year.</p> <p>It is difficult to get some of the hill men sent to jail to keep themselves clean. They are naturally a dirty lot.</p> <p>As reported last year, the water-supply is not good, and there is no doubt that cholera, which prevailed during the year, was in a great measure conveyed into the jail by the canal water. A temporary arrangement has been made to get water for drinking and cooking purposes from a reservoir of good potable water near the <i>kutcherry</i>. A scheme has been submitted to the Government for orders to</p>

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Dehra Dun— <i>continued</i> . . .	N.-W. P. and Oudh	<p>connect this reservoir with the jail by pipes, and so obtain a supply of good drinking water.</p> <p>Malarial fevers were prevalent in certain parts of the district, and these, no doubt, act deleteriously on the constitution of the inhabitants. The very poor also suffer from the cold and damp in certain parts of the district, and during this year the almost famine prices of food had some effect in producing sickness, etc., among the poorer inhabitants. The rainfall during 1896 was 75'34 against 83'33 in 1895, but it was unevenly distributed this year.</p> <p>The principal cause of ague was climatic, this disease being prevalent also in the district during the months of September and October chiefly. Cholera and most of the diarrhoea are attributable to the canal water, which is liable to pollution on its way to the jail.</p>
Muzaffarnagar	„ „ . . .	<p>There was overcrowding for 8½ months during the year.</p> <p>The factory had to be occupied as a sleeping barrack from the 20th September to the end of the year.</p> <p>Ventilation is too free at night and too little by day, owing to the undesirable arrangement of partially closing the gratings with sun-dried bricks.</p> <p>The blanket clothing is of very inferior quality, and, owing to the large number of prisoners locked up over the authorized capacity, the number of blankets has been insufficient at times.</p> <p>The larger number of admissions into hospital has been for simple ague, which can only be attributed to climatic causes. In the early part of the year, influenza was epidemic and caused three deaths, two being due to secondary pneumonia, and one to secondary cerebro-spinal meningitis.</p> <p>The urgent need of the hospital being enlarged and reconstructed has been brought to notice, and an estimate has been sanctioned for this work. The present hospital is as bad as it can possibly be for the accommodation of the sick.</p>
Moradabad	„ „ . . .	<p>The jail was overcrowded more or less almost throughout the year.</p> <p>The water is obtained from a well-constructed well inside the jail. The water was examined by the chemical examiner, and declared to be good.</p> <p>The covered drain referred to in the sanitary sheet for 1895 has been opened up, and is now in no way injurious.</p> <p>The relapsing fever cases were a continuation of the epidemic that appeared in the autumn of 1895, and which was attributed to under-feeding of the prisoners. The admissions for ague were as usual the principal. They were all amenable to treatment, although the prisoners in some cases came from a very malarious portion of the district with evident signs of having suffered for long from this disease. The pneumonia cases did not occur in any one class of prisoners more than another, nor did they originate in any one part of the jail, but were distributed over it, coming in equal number from almost every barrack. The greater number occurred in the months of July and October, probably owing to the variations in temperature during these two months being the greatest. For in July, after long breaks in the rain and intense heat, the temperature on a fall of rain occurring fell greatly. In October of course the season was passing into the cold weather. There was nothing to indicate that any other cases that occurred were in any way due to contagion. On the other hand, everything pointed to variations in temperature being the cause.</p> <p>During January and February all prisoners whose sentences were two months and upwards were transferred to other jails. Beyond being taken into the office for weighment they did not remain within the jail wall, but were kept in a camp at the jail gate, and forthwith sent away. This precaution was taken as the fever which existed was undoubtedly infectious.</p> <p>Overcrowding, though it existed, was not allowed to do so for any length of time to any great extent. The old mill-house was converted into a barrack, thus diminishing overcrowding. The barrack formerly occupied by the civil prisoners was also converted into a convict barrack. A large and airy mill-house was completed, likewise a civil barrack outside the jail precincts. The gratings of the barracks were closed up with <i>kutchha</i> bricks in the cold weather—a custom which does not appear to have been in vogue hitherto.</p>
Jhansi	„ „ . . .	<p>There has been slight overcrowding in the female ward during the months of July, August, September and November.</p> <p>The year was a healthy one, and a large portion of admission was due to the emaciated state of the prisoners on admission, owing to the prevailing scarcity.</p>
Lalitpur	„ „ . . .	<p>The capacity of the female barrack is only 18, but it accommodated on the average 20'29 per day during the month of August.</p> <p>It is recommended that grated openings be made in the walls at the back of barracks 4 and 5 for better ventilation.</p>

PRISONERS, 1896.

TABLE XLIV--continued.

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Lalitpur--continued . . .	N.-W. P. and Oudh	<p>The sickness and mortality have been mainly due to diarrhœa and dysentery in persons admitted into jail suffering from these maladies, and in a very bad state of health owing to scarcity and famine prevailing in the district. With the exception of one case of bilious remittent fever, all the men who died came into the jail suffering from the respective diseases previously.</p> <p>Cholera of a virulent type prevailed for about five months in the vicinity, and among the surrounding population; but it did not affect the prison in the least, owing to special sanitary precautions being adopted from the very beginning, and to the strict adherence by the <i>daroga</i> of the jail to the measures suggested.</p>
Lahore, Female	Punjab	<p>No overcrowding.</p> <p>The majority of the drains are mere surface ones without brick lining. There did not appear to be any local causes of disease beyond the influence of malaria, which is present throughout the Lahore district, especially during the autumn months. Ague gives the largest number of admissions, caused by malarial poisoning. The number of cases admitted on account of this disease, however, has decreased so remarkably during the last three years that apparently the conditions favourable to the development of the malaria body have been modified. Dysentery has caused 24 admissions; it is as yet impossible to say what the actual cause of the disease is; it is only fatal when old and feeble prisoners are attacked.</p> <p>There has been now a high mortality rate for the past two years. This in itself is most unsatisfactory. At the same time it should be pointed out that the jail population being small, every death adds 6.75 on to the rate per mille. Again, there is a very large collection of feeble old women unfit for transportation. These must necessarily all die in the jail as very few, if any, can hope to live long enough to pass their full term of imprisonment. The conditions of life in this jail receive the most careful attention, and, given an ordinary population, it should be the healthiest jail in the province.</p>
Dharmasala	"	<p>No overcrowding.</p> <p>Lateral ventilation is deficient in the wards and paper factory. Latrine accommodation deficient: only 12 prisoners can use the latrine at the same time.</p> <p>Bathing platform small: only 6 prisoners can bathe at one time.</p> <p>Water is brought from a distance by hand from a supply that is liable to dry up, and is not protected.</p> <p>In all probability the greater part of the sickness of the jail has been due to removal to a cooler climate, and to a place having a doubtful water-supply, of persons in a bad state of health from exposure to malarial miasma in the valley.</p>
Shikarpur	Bombay	<p>Overcrowding lasted almost throughout the year, but chiefly in summer, when the prisoners could not be transferred owing to the prevalence of small-pox. This was not felt in those days, as the prisoners were sleeping in the open.</p> <p>The barracks are very old, and the windows are too low, and admit of draught if kept open in the cold weather. This has been to a certain extent rectified by the new ventilators.</p> <p>Excessive heat in the hot weather is productive of sunstroke and heat fever.</p> <p>Sudden variations in temperature account for the prevalence of pneumonia, as well as malarial fever and bronchitis; mortality being due to the same source, and partly to the floors of the barracks not being paved, and thus admitting of subsoil moisture.</p> <p>Tin ventilators were put up in all the barracks during the year. The sleeping berths in the hospital ward were too high in comparison with others, and they were lowered down to the same height. Shutters were provided for the hospital upper windows to regulate the access of air. Improvements were effected in the roof ventilators (outlets of barrack No. 5). The hospital bath-rooms were provided with doors to prevent draughts and unpleasant smells entering the room.</p> <p>It was recommended that the central passage of all the barracks should be paved with burnt brick, so as to prevent the air being filled with the dust arising from the floor; and that the defective roof ventilation of barrack No. 7 should be improved.</p> <p>During the first four months of the year, erysipelas made its appearance in 25 cases, carrying off 2 patients. Small-pox appeared in April, and ended in July, numbering 11 cases with no deaths. Two cases were admitted with small-pox in October, but they were all isolated in <i>landhis</i> built for them in the jail garden, and kept there under the supervision of a guard until their complete recovery.</p>
Deccan Gang	"	<p>There was no overcrowding. Tents were used at the time of shifting of the gang, <i>viz.</i>, twice during the year. Barracks of grass thatched roof and split bamboos were used for the confinement of the prisoners. The thatch leaked with every shower of rain,</p>

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Deccan Gang— <i>continued</i> . . .	Bombay	<p>making the soil damp. The rainfall was unusually heavy during the first part of the monsoon.</p> <p>The personal cleanliness of the prisoners is defective, owing to their having no sufficient time to attend to it, and for want of a sufficient supply of water during some part of the year. Clothing was greatly patched, torn, and in rags and insufficient up to July, when better clothing was issued.</p> <p>Two ounces of extra wheat-flour were issued to those constantly losing weight. There is difficulty in getting fresh vegetables.</p> <p>Prisoners not used to digging earth and <i>murum</i> suffer until they get accustomed to it. At road work there is no shade during the hot part of the day.</p> <p>The water from the wells near the camp was used, and was pronounced to be fair by the chemical analyser with the Government of Bombay. For ablution purposes, water from the <i>nullah</i> and the well was used, but was not sufficient.</p> <p>Malarial fevers depended on the climatic influences of the district, aggravated by imperfect thatching and its consequences. Diarrhœa prevailed mostly in the months of February, May, July and August, and was owing mostly to climatic influence and change of season. Rheumatism prevailed during the months of November and December. Abscesses were mostly in the soles of the feet owing to the nature of the work. Dysentery prevailed in the monsoon. Next in order of frequency was bronchitis due to exposure.</p>
Thana	”	<p>The jail was overcrowded during the months of January, February, November and December.</p> <p>The chemical analyser to the Government has repeatedly condemned the water supplied to the jail in pipes from the <i>Pokhron</i> tank as unfit for potable purposes. The water used for drinking purposes in the jail is from a well in the hospital compound, and has been reported on as a fair sample of potable water.</p> <p>The moat running underneath the hospital walls may have some influence in producing or aggravating the malarial fever present in this jail. The moat always contains stagnant water with a large amount of vegetation in it.</p> <p>Sickness and mortality were due to the following causes:—Fever of a malarial character and due to climatic causes; cholera—introduced into the jail from outside; epidemic diarrhœa—occurring during the prevalence of cholera; diarrhœa and dysentery—chiefly occurring in the rainy season; skin diseases—occurring in prisoners who come in suffering therefrom.</p>
Basim	Berar	<p>The jail was overcrowded in January and February, and again from 22nd October to 31st December 1896.</p> <p>During the year the area of the jail was drained by two large pipe drains. These have acted satisfactorily, in that fever has decreased and dysentery has disappeared.</p> <p>The clothing is suitable to the climate and season. The supply during the year was found insufficient, and during the period of overcrowding, the private clothing of the prisoners had to be brought into use.</p> <p>No defects in the surroundings at present exist.</p> <p>The cases of influenza were admitted at the beginning of the year, when the disease prevailed in an epidemic form in the district. Ague is endemic in Berar, and the admissions were of cases who were not in the very best of health on their admission to jail. Bronchitis and pneumonia gave admissions among men engaged in occupations involving exposure to cold and wet, and over-exertion. The two cases of phimosis came into jail suffering from the disease, it being the result of gonorrhœa and syphilis. Itch and abscesses occurred among those who were in a weakly state of health. Guinea-worm gave two admissions in men who contracted the disease in the Nizam's territory, where this disease is very common.</p>
Yeotmahl . . . . .	. . . . .	<p>The jail was overcrowded all through the year.</p> <p>As cholera prevailed in this jail from the 11th to 24th July 1896, three tents were used to relieve overcrowding, and to provide quarantine for under-trial prisoners, and others received on conviction.</p> <p>The surroundings are clean and in a fair sanitary state.</p> <p>The sickness and mortality were due to climatic changes, and to poor health of the prisoners prior to admission.</p> <p>The civil surgeon recommended that the mud flooring in all the barracks, dormitory cells, under-trial ward, and hospital, should be replaced by concrete, and that latrines should be erected for the reserve warder guard and the warder establishment of this jail.</p> <p>It is noted that, as a rule, all the prisoners on admission suffer from malarial cachexia, due to residence in a malarial district.</p>
Jubbulpore	Central Provinces	<p>Overcrowding lasted from 29th June to 23rd October 1896. Workshops were occupied as long as the overcrowding existed.</p>

TABLE XLIV—continued.

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.
The ratios of sickness and mortality will be found in Table XLII.

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Jubbulpore—continued.	Central Provinces	<p>The sickness in the jail during the year has not been great, but the mortality was very high, due chiefly to a gangrenous state of the large intestine caused by long continued deprivation of food. It is believed that the majority of the admissions are more or less in this state, and only those who are hopelessly bad die. It seems impossible with all care regarding diet to keep them alive. It is equally impossible to say exactly what will be the state of intestine on post-mortem examination, even to the extent of perforation or not.</p> <p>All dysentery and stomatitis cases were treated in tents in the large compound attached to the jail hospital.</p>
Saugor	"	<p>All the barracks were overcrowded from July to December. One of the work sheds was utilised as a dormitory. Cholera patients were kept in temporary sheds (three cases during the year). As pointed out last year, large openings are required in the roof to promote top ventilation.</p> <p>Some of the drains require repairing.</p> <p>Separate day latrines are needed; the present arrangement is very unsatisfactory (latrines being a part of the work sheds).</p> <p>The site of the jail is not good, as pointed out in last year's report. The free population of the district suffered badly from privation for the last three years, and, in consequence, the health of the people was deteriorated, and the prisoners brought to jail were in a very low state of health. Thirteen prisoners were brought to jail in <i>dhoolies</i> and carts in a moribund state. One hundred and sixty-eight prisoners were directly admitted to hospital, excluding those who were placed in the infirm gang. Complaints were made by the prisoners that they had to eat oil-made <i>poories</i> and parched grain while under police custody. This practice of the police of giving such food is very productive of diarrhoea, and consequent admission of the prisoners direct to the jail hospital. Besides this, it was found that a number of cases, <i>vis.</i>, pneumonia, fever, dysentery, anæmia (quite unable to walk), were forced to march to jail. These should have been accommodated in carts.</p> <p>Wooden shutters are required in the sleeping barracks. <i>Pucca</i> drains are required for the jail as a whole, and a bathing platform for the hospital. A waterpipe is required from the well to each work shed.</p>
Damoh	"	<p>Overcrowding lasted throughout the year.</p> <p>Workshops were used as dormitories almost every night when there was serious overcrowding.</p> <p>The drainage is fair, but there is room for improvement when funds are available.</p> <p>The water-supply was insufficient in the hot weather, as usual in the inside jail well, though it had been deepened, and the supply had to be brought from <i>Phutera</i> tank.</p> <p>Sickness and mortality have been excessive owing to the unsatisfactory condition of the prisoners when admitted into the jail. There were 81 in good health, 62 in fair, and 374 in bad and indifferent health. Ninety had healthy gums and 427 unhealthy gums. Fifty-seven prisoners out of 360 were admitted directly into the jail hospital from outside, and 12 died. Dysentery this year was of a peculiar nature, and not very amenable to treatment. The class of patients affected was of the poorest physique, and showed signs of prior privation or the use of unwholesome food. The villagers in some cases lived upon <i>bael</i> fruits, <i>gum</i> of sorts, etc., etc. There was an offensive odour emanating from the bodies of these persons. The disease in some instances rapidly proved fatal soon after the patient's admission into hospital for griping pain and loose stools. Cholera made its appearance this year in the jail. During the hot weather the prisoners had to fetch water from <i>Phutera</i> tank, some 2 miles off from the jail, and had to pass through localities where there was cholera. Moreover, a relative of a warder came to his quarters from Saugor, and was attacked with cholera soon after. This case proved fatal. One warder was attacked with cholera a few days after. He too was removed and died. Both dysentery and cholera were of a virulent type in the free population amongst poor and rich, and carried off a considerable number. Climatic influences had also to do a good deal with these diseases,—sudden cold and continued intense heat. The mortality among the free population was far greater than that of the jail population.</p> <p>To improve the condition of faulty night latrines was recommended.</p>
Sambalpur	"	<p>Overcrowding existed till 27th May 1896, but practically it lasted to the end of the year. The under-trial ward was overcrowded all the year round.</p> <p>To accommodate the surplus number of prisoners workshops were used each night.</p> <p>In the female and under-trial wards there are still insanitary latrines.</p> <p>The jail is surrounded by rice fields. A hill to the north-west close to jail makes it very hot at night in the hot weather owing to radiation.</p>

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Sambalpur— <i>continued</i> . . .	Central Provinces . . .	<p>Syphilis is prevalent in the district. Diarrhœa is common owing to chills at the commencement of the rainy season. Dysentery caused two deaths. Overcrowding had something to do with the violence of these cases. It is a prevalent disorder here during the rains, and is in some way connected with the sudden lowering of temperature. Cholera caused four deaths. The disease was imported into the town from outside. The tank system prevailing here, and the utter disregard of cleanliness which obtains here, as elsewhere, offer an excellent means of preserving and propagating the microbe of cholera. Diarrhœa caused two deaths. Diarrhœa, as well as dysentery, prevails at the outset of the rains.</p> <p>Three new latrines were built, and are very satisfactory.</p> <p>A well was dug in the <i>bund</i> of the jail tank to admit of more ready watering of the garden.</p> <p>The following recommendation was made and carried out:—That the overcrowding which existed at the time of the outbreak of cholera be relieved by the release of 24 prisoners who had served five-sixth of their sentences.</p> <p>Scurvy has been very rarely seen among the prisoners. Three cases were detected on their admission to the jail, and treated in hospital immediately. The cases were mild in their manifestations, and were only 7, 7 and 5 days under treatment respectively.</p>
Mandla	„	<p>The number of inmates steadily increased till the end of February, when overcrowding began. By the end of March this was excessive and 31 prisoners were transferred to the central jail—a measure which relieved pressure till the middle of June when overcrowding began again, and continued throughout the year, notwithstanding the special release of certain prisoners to relieve the condition.</p> <p>One work shed was occupied to the full extent, one from 23rd June and two from 25th September; but even this measure did not quite relieve the overcrowding.</p> <p>The night latrines situated at the end of each barrack are highly insanitary, and allow the odour of fæces to permeate the whole of each building. Plans to remedy this defect have been sanctioned; but the work has not yet been begun.</p> <p>Disinfection of water with potassium permanganate was carried out at regular intervals during the prevalence of cholera in the town and district.</p> <p>The condition of the people owing to the scarcity of food grains was much below normal.</p> <p>The large proportion of those in indifferent and bad health on admission into jail was due chiefly to starvation and to exposure from want of clothing; and to unsuitable diet which produced bowel disorders.</p> <p>The sickness and mortality were chiefly due to the weakly condition of the inmates, a large proportion of whom were in an advanced stage of starvation. Bowel disorders especially were prevalent amongst new admissions, and this was the result of unsuitable food, forest roots, herbs and leaves, on which most of the very poor had to depend, owing to scarcity of food grains. The number of admissions of men with inflamed and ulcerated gums was 423, and of men in indifferent and bad health 704.</p> <p>The following improvements were effected during the year:—</p> <p>Small reservoirs for drinking water were constructed in each barrack.</p> <p>The female barrack was provided with a new bathing platform and cistern, etc.</p> <p>The accommodation for under-trial prisoners is insufficient. There are no separate wards for juveniles, and no cells for females.</p>
Seoni	„	<p>Excess under-trial prisoners were kept in sheds inside the jail. In the convict wards there were sometimes more men than berths, but not too many for the cubic capacity.</p> <p>Ventilation is too free in the barracks in the cold months, when the lateral windows have to be half bricked up. Shutters are required.</p> <p>The subsoil water during the months of July, August and September is only some 3 to 5 inches below ground level.</p> <p>In many cases the ration is more than the newly admitted have been accustomed to or can digest.</p> <p>In a large degree sickness and mortality, particularly the latter, have been due to the general agricultural distress, and the consequent low standard of health of the prisoners. Another cause of sickness is that the jail ration is more than the newly admitted, in times of scarcity, can assimilate. Nearly all admissions to hospital for bowel complaints (the chief disease) were amongst new admissions; whilst a reference to the mortality table shows that of 17 men who died only 2 were in good health on admission; that the ages of most were excessive (10 being 45 to 60); that all were short-term prisoners, many having been in jail only a matter of days. And their recorded weight on admission (65 lbs. to 108 lbs.) tells its own tale.</p> <p>A new pattern day latrine in the main convict yard, commenced in 1895, has been completed. Enclosure of the work sheds, which</p>

TABLE XLIV—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

JAILS.	PROVINCES.	Sanitary defects, improvements, suggestions, etc.
Seoni— <i>continued</i>	Central Provinces	will give increased shelter to convicts at work, was commenced towards the end of the year. A recommendation to have folding shutters to all barracks was made, but was not taken up for want of funds. Fifteen male convicts were released during November and December to relieve overcrowding.
Narsinghpur	„	The overcrowding was in January, July and August to some extent ; and from September to the end of the year the jail was very much overcrowded, although steps were taken to relieve this by premature releases by order of the local government and by transfers to other jails. A certain number of prisoners were made to sleep in the work sheds during these days. The sickness and mortality were especially due to the weakened condition of the people before coming into the jail in consequence of repeated failure of the crops and insufficiency of food, which occasioned bowel complaints. The ventilation of the hospital was improved by adding extra ventilation holes. The cells were raised, and additional ventilation added.
Balaghat	„	Overcrowding lasted for 202 days among the male convicts, 252 days among the female convicts, and 248 days among the under-trial prisoners during the year. The cause of the cholera outbreak was importation from outside. The cause of the admission and mortality from bowel complaints was the poor general physical condition of the prisoners on admission. The partition walls of barracks Nos. 1 and 2 and 5 and 6 were converted into arches, thereby improving the ventilation. The under-trial ward is being converted into the female ward.
Rajamundry	Madras	No overcrowding existed during the year. A more liberal supply of solid vegetables should be given instead of the ordinary country greens. In a few cases sufficient discretion has not been used in the choice of labour given to men with bad or indifferent health. No local causes of disease can be discovered except the climate, which is decidedly malarious, and subject to great variations. Previous bad health is a frequent predisposing cause of sickness in jail. A very large number of convicts were admitted in an indifferent or bad state of health, suffering from the effects of malaria, anæmia, spongy gums, privation, etc. Some were very feeble old men. These cases either had to be admitted to hospital or placed in the convalescent gangs. Nine men suffering from malarial cachexia and in bad health were recommended for transfer to Vellore Central Jail. One man was recommended for release on medical grounds. Fourteen drinking water cisterns were constructed during the year in all the blocks. Lime pickle was recommended for all the prisoners for six months, but it is doubtful whether any appreciable benefit was produced. In consequence of general loss of weight an extra 3 oz. of raggi and $\frac{1}{2}$ oz. of salt were recommended for the district jail prisoners as a trial for three months from 28th September 1896. From time to time recommendations were made for solid and antiscorbutic vegetables to the prisoners in place of country greens. Avoidance of undue exposure to bad weather, lighter tasks, and extra clothing for all weakly men, and airing of all filth receptacles were recommended. The employment of a trained and qualified nurse was also recommended.
Berhampur	„	No overcrowding. - One well has been specially set aside for drinking purposes. The water is rather hard, and when examined by the chemical examiner, Madras, was declared to be suspicious. Previous to being used, it is boiled and filtered. Cholera was prevalent throughout the district of Ganjam and in Berhampur. With regard to the one case in the jail, the deceased convict must have had the disease conveyed from without. This district is in many parts most malarious, and the inmates often are admitted in a broken down condition with the disease. The case of erysipelas was caused by a dirty fether wound. General repairs are being carried out, ventilating gratings being let into all the blocks. Two cholera sheds were erected in the jail garden. The cistern just outside the main wall, which used to receive the washings of the general latrine, was closed by the Public Works Department and the drain continued into the garden, emptying into a new cistern.

PRISONERS, 1896.

TABLE XLV.

INFLUENZA by months, jails, groups, and administrations.

TABLE XLVI.

CHOLERA by months, jails, groups, and administrations.

[illegible]

* Jails where neither Influenza nor Cholera occurred are not shown in these tables. For the annual ratios see Table XLII.

PRISONERS, 1896.

TABLE XLV—continued.

INFLUENZA by months, jails, groups, and administrations.

TABLE XLVI—continued.

CHOLERA by months, jails, groups, and administrations.

JAILS.	ADMISSIONS FROM INFLUENZA IN EACH MONTH.												ADMISSIONS FROM CHOLERA IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Aligarh . . . . .	...	...	...	...	...	...	4	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Bulandshahr	9	...	...	...	...	...	...	...	...	...	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Shahjahanpur . . . . .	...	9	40	...	...	...	...	...	...	...	...	...	49	...	...	...	...	...	...	...	...	...	...	...	...	...
Bareilly, Central . . . . .	...	...	244	147	...	...	...	...	...	...	...	...	391	...	...	...	...	...	...	...	...	...	...	...	...	...
„ District	20	66	14	...	...	...	...	...	...	...	...	...	100	...	...	...	...	...	...	...	...	...	...	...	...	...
Saharanpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Bijnor . . . . .	...	...	5	14	5	3	1	1	...	...	...	...	29	...	...	...	...	...	...	...	...	...	...	...	...	...
Dehra Dun . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	4
Muzaffarnagar	2	9	9	7	8	...	...	...	...	...	...	...	35	...	...	...	...	...	...	...	...	...	...	...	...	...
Moradabad	14	3	...	...	...	...	...	...	...	...	...	...	17	...	...	...	...	...	...	...	...	...	...	...	...	...
Meerut	17	10	6	10	2	1	...	...	...	...	...	...	46	...	...	...	...	...	...	...	...	...	...	...	...	...
Umballa	6	4	1	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Ludhiana	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Ferozepore	9	...	...	...	5	5	...	...	...	...	...	...	19	...	...	...	...	...	...	...	...	...	...	...	...	...
Lahore, Central	93	141	73	...	...	...	...	...	...	...	...	...	307	...	...	...	...	...	...	...	...	...	...	...	...	...
„ District	13	...	...	...	...	...	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
„ Female	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Gurdaspur	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Chinawan	35	3	...	...	...	...	...	...	...	...	...	...	38	...	...	...	...	...	...	...	...	...	...	...	...	...
Rawalpindi	19	...	...	...	...	...	...	...	...	...	...	...	19	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VI.—UPPER SUB-HIMALAYAN	242	245	392	178	20	9	5	1	...	...	...	...	1,092	...	...	...	...	...	1	...	4	...	...	...	...	5
Montgomery	80	1	...	...	...	...	...	...	...	...	...	...	81	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ghazi Khan	14	4	...	...	...	...	...	...	...	...	...	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ismail Khan . . . . .	...	...	7	1	1	...	...	...	...	...	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Peshawar	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Sind Gang	16	...	...	...	...	...	...	...	...	...	...	...	16	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY AND N.-W. RAJPUTANA	111	5	7	1	1	...	...	...	...	...	...	...	125	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhansi . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1
Lalitpur . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA AND GUJARAT . . . . .	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	1	...	...	...	...	...	1
Dhulia . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	2
Yerrowda . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Dharwar . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1
Bijapur District	6	9	...	...	...	...	...	...	...	...	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...
Amraoti	21	...	...	...	...	...	...	...	...	...	...	...	21	...	...	...	...	...	...	...	...	...	...	...	...	...
Basim	1	1	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Yeotmahl	5	4	3	1	...	...	...	...	...	...	...	...	13	...	...	...	...	...	6	...	...	...	...	...	...	6
Secunderabad . . . . .	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Jubbulpore	40	10	5	7	1	...	...	...	...	...	...	...	63	...	...	...	...	...	...	...	...	...	...	...	...	...
Saugor	13	2	...	...	...	...	...	...	...	...	...	...	15	...	...	...	1	1	1	...	...	...	...	...	...	3
Damoh	1	4	...	...	...	...	...	...	...	...	...	...	5	...	...	...	1	7	8	...	...	...	...	...	...	16
Sambalpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	4
Raipur	99	...	...	...	...	...	...	...	...	...	...	...	99	...	...	...	...	1	...	...	...	...	...	...	...	1
Bilaspur	7	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Seoni . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	2
Nagpur	27	53	1	...	...	...	...	...	...	...	...	...	81	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhandara . . . . .	...	8	2	...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Balaghat . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	2	...	...	...	7
GROUP IX.—DECCAN	220	92	13	8	1	...	...	...	...	...	...	...	334	1	...	1	1	11	9	11	7	2	...	...	...	43
Thana . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37	11	...	...	...	...	...	48
GROUP X.—WESTERN COAST . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37	11	...	...	...	...	...	48
Madras Penitentiary, Natives . . . . .	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Coimbatore . . . . .	...	107	9	...	...	...	...	...	...	...	...	...	116	...	...	...	...	...	...	...	...	...	...	...	...	...
Trichinopoly	11	...	...	1	2	...	...	...	...	...	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Salem . . . . .	...	1	1	1	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Palamcottah . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2
Rajamundry . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Berhampur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XI.—SOUTHERN INDIA	11	110	10	2	2	...	...	...	...	...	...	...	135	...	...	...	...	...	...	...	1	...	...	3	...	4
Darjeeling . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Dharmasala . . . . .	...	...	1	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Shillong	5	1	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XII.—HILLS	5	1	2	1	...																					

ADMINISTRATIONS.	ADMISSIONS FROM INFLUENZA IN EACH MONTH.												ADMISSIONS FROM CHOLERA IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
ANDAMANS
BURMA	5	1	1	1	..	14
ASSAM	5	2	1	..	..	..	..	..	..	..	..	..	8	..	1	1	..	..	..	..	..	1	..	..	3
BENGAL	115	527	507	70	7	134	30	6	..	1,396	1	2	7	36	10	36	12	7	1	2	114
N.-W. PROVINCES AND OUDH	211	473	619	211	16	5	5	1	136	24	9	19	1,729	4	..	2	2	12	..	4	3	..	27
PUNJAB	275	153	82	2	6	5	..	..	..	..	..	..	523	..	..	..	..	..	..	..	..	..	..	..	..
BOMBAY	22	10	..	..	..	..	..	..	..	..	..	..	32	1	..	1	..	..	..	37	13	..	..	..	52
BERAR AND SECUNDERABAD	27	5	5	1	..	..	..	..	..	..	..	..	38	..	..	..	..	..	6	..	..	..	..	..	6
CENTRAL PROVINCES	187	77	8	7	1	..	..	..	..	..	..	..	280	..	..	..	1	11	9	5	5	2	..	..	33
MADRAS	11	110	10	2	2	..	..	..	..	..	..	..	135	..	..	..	..	..	..	..	1	..	..	3	4
NON-BRITISH JAILS :— Kolhapur . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2

TABLE XLVII.

ENTERIC FEVER by months, jails, groups, and administrations.

JAILS.*	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Bassein	1	..	..	..	..	1	..	..	..	2
Maubin	1	..	..	..	..	..	..
Rangoon (Europeans)
„ (Natives)
Insein
Moulmein
Tavoy
Port Blair
GROUP I.—BURMA COAST AND BAY ISLANDS	1	..	..	..	..	1	..	..	..	2
Thayetmyo	1	..	..	..	..	1
Myingyan	1	..	..	..	..	..	..	..	..	1
Monywa
Magwe
Shwebo
Prome
GROUP II.—BURMA INLAND	1	..	..	..	1	..	..	..	..	2
Nowgong
GROUP III.—ASSAM
Presidency (Europeans)
Ditto (Natives)	1	..	..	..	..	..	..	..	..	..	..	1
Alipore
Jessore
Khulna
Burdwan
Malda
Rangpur	1	..	..	..	..	..	..	1
Bogra
Pabna
Faridpur
Noakhali
Tippera
Dacca
Cuttack
Balasore	1	..	..	..	1
Naya Dumka
GROUP IV.—BENGAL AND ORISSA	1	..	..	..	1	..	..	..	1	..	..	3
Bhagalpur
Chaibassa	1	..	..	..	..	..	..	..	..	..	..	1
Hazaribagh
Gaya
Arrah
Muzaffarpur
Benares, Central
„ District
Chunar
Jaunpur
Fyzabad
Sultanpur
Hardoi
Lucknow, Central
Barabanki
Unao
Orai
Fatehgarh, Central	5	2	..	..	..	7
Fatehpur
Allahabad District
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	1	..	..	..	..	..	5	2	..	..	..	8
Aligarh
Bulandshahr
Bareilly District
Moradabad
Meerut	1	..	..	..	..	..	..	..	..	1
Delhi
Ludhiana
Jullundur
Gujrat	1	..	..	..	1
Rawalpindi
GROUP VI.—UPPER SUB-HIMALAYAN	1	..	..	..	..	..	1	..	..	2

TABLE XLVIII.

SIMPLE CONTINUED FEVER by months, jails, groups, and administrations.

ADMISSIONS FROM SIMPLE CONTINUED FEVER IN EACH MONTH.												
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
3	...	2	10	9	17	16	20	9	9	13	1	109
...	...	2	...	...	1	2	1	...	2	...	1	9
...	...	...	...	...	...	...	...	1	2	1	1	5
...	...	...	116	30	42	20	20	37	34	15	29	343
1	2	...	...	...	...	...	...	...	...	...	...	3
4	...	...	6	2	2	1	2	7	4	2	1	31
...	...	1	...	...	...	...	...	...	...	...	...	1
8	10	26	38	30	37	16	11	21	21	27	16	261
16	12	31	170	71	99	55	54	75	72	58	49	762
...
...
...
...	1	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	2	2
...	...	...	1	...	...	...	...	...	...	...	...	1
...	1	...	1	...	...	...	...	...	1	...	3	6
...
1	...	...	...	...	...	...	1	2	...	...	...	4
1	...	...	...	...	...	...	1	2	...	...	...	4
...	...	...	1	1	2	...	...	...	...	...	...	4
...	...	18	22	6	23	12	...	...	...	...	...	81
40	42	39	29	24	38	39	44	87	84	25	28	519
...	...	...	...	...	...	1	6	4	10	...	...	21
...	...	...	...	...	1	...	...	1	...	...	...	1
...	...	...	...	2	...	1	...	1	...	...	...	4
...	...	...	...	...	...	...	1	2	1	...	7	11
...
...	...	...	...	1	2	...	3	4	...	...	1	11
2	...	2	...	1	1	...	...	3	...	1	8	18
1	...	4	1	1	3	8	12	7	4	13	4	58
...	...	...	1	1	...	...	...	...	1	...	...	2
3	1	1	3	7	6	3	1	...	...	4	6	35
...	...	...	...	...	12	26	31	65	32	...	...	166
...	...	...	...	1	...	...	...	...	...	...	...	1
...	...	...	...	...	1	...	...	...	...	...	...	1
...	...	...	...	...	...	3	1	...	...	...	...	4
46	43	64	56	45	89	93	99	173	132	43	54	937
2	...	6	15	14	14	8	2	1	...	...	...	62
...
9	...	...	4	8	6	9	10	13	16	7	32	114
3	...	2	...	2	...	...	...	...	...	...	...	7
...	...	...	...	...	...	1	...	...	...	...	...	1
...	...	...	1	...	...	...	...	...	...	...	...	1
...	...	...	1	1	...	...	...	...	...	...	...	1
...	1	...	1	...	...	...	...	...	...	...	...	3
...	...	...	1	...	...	...	...	...	...	...	...	1
...	1	...	...	...	...	...	...	...	...	...	...	1
...	...	1	...	...	...	...	...	...	...	...	...	1
2	2	9	6	10	...	2	...	...	...	...	...	31
...	...	...	...	...	...	...	...	3	1	...	...	4
...	...	...	...	2	...	...	...	...	...	...	...	2
...	2	6	1	3	2	2	4	...	...	2	2	24
...	...	...	1	6	2	...	...	...	...	...	...	9
...
2	2	5	1	1	...	3	2	1	2	1	...	20
...	...	...	...	...	...	1	...	1	...	1	...	3
18	8	29	32	47	24	26	18	20	19	11	34	286
...	...	...	5	...	1	1	...	...	...	...	...	7
1	...	...	1	...	...	...	...	...	...	...	...	2
39	4	7	7	6	5	2	2	2	...	...	...	74
1	1	2	9	1	...	1	5	10	2	1	1	34
...	...	2	2	...	...	...	...	...	3	...	...	7
...	...	...	...	...	...	5	...	...	...	...	...	5
6	5	...	2	3	2	9	3	5	3	1	...	39
...	...	1	1	...	...	...	...	...	...	...	...	2
...
...	...	...	...	...	...	...	4	...	1	...	...	5
47	10	12	27	10	8	18	14	17	9	2	1	175

* Jails where neither Enteric Fever nor Simple Continued Fever occurred are not shown in these tables. For the annual ratios see Table XLII.

JAILS AND ADMINISTRATIONS.	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												ADMISSIONS FROM SIMPLE CONTINUED FEVER IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Kohat	1	..	..	..	1
Sind Gang	1	..	1
Shikarpur	1	..	..	..	..	..	..	1
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY AND N.-W. RAJPUTANA	1	..	..	1	..	..	..	3
Agra Central	1	..	..	..	..	..	..	..	..	1
Lalitpur	1	1	1	..	..	..	..	..	3
Ahmedabad	2	3	3	3	..	11
Rajkot	1	..	..	..	..	..	..	..	..	..	1
GROUP VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA AND GUJARAT	1	1	1	1	1	..	2	3	3	3	16
Yerrowda	1	..	1
Dharwar	1	..	..	1
Deccan Gang	3	..	..	..	..	..	..	..	..	..	4
Akola	2	..	..	..	2
Buldana	2	..	..	..	..	..	..	..	2
Saugor	1	1	..	..	..	2
Mandla	1	..	..	..	..	1
Seoni	1	..	..	..	..	..	1
Chhindwara	1	..	..	1	..	..	..	..	..	5	..	7
Betul	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Narsingpur	1	..	..	..	..	..	..	..	1
Nagpur	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Bhandara	1	1	1	2	2	4	4	8	4	..	..	27
Wardha	2	1	1	..	2	..	..	..	..	6
Balaghat	1	1	..	..	..	..	..	..	..	2
GROUP IX.—DECCAN	3	..	..	..	..	3	..	2	4	4	8	3	5	6	12	5	1	7	57
Thana	4	2	1	..	3	..	..	..	..	..	..	..	10
Mangalore	1	..	..	..	..	1	..	..	..	..	..	2
Cannanore	4	11	1	3	5	2	9	3	3	2	1	5	49
GROUP X.—WESTERN COAST	8	14	2	3	8	2	10	3	3	2	1	5	61
Madras Penitentiary (Natives)	2	3	7	..	5	5	10	3	6	41
Vellore	24	28	26	14	9	32	29	28	22	22	25	23	282
Cuddalore	2	3	3	1	2	1	2	1	..	..	..	15
Coimbatore	4	1	..	..	9	6	2	3	11	6	8	2	52
Madura	1	..	..	2	1	4	
Salem	1	..	2	1	..	1	..	..	..	1	2	8
Tanjore	1	..	..	..	..	..	..	..	1
Palamcottah	1	..	..	1	..	1	2	1	2	8
Rajamundry	2	..	..	1	..	..	..	1	4
Vizagapatam	1	1	1	..	..	..	1	3	..	..	1	8
Nellore	3	2	3	5	..	2	..	3	2	6	..	2	28
Berhampur	1	..	..	1
GROUP XI.—SOUTHERN INDIA	31	35	33	28	24	51	35	43	45	46	41	40	452
Dharmasala	1	..	..	..	..	..	..	1	..	..	..	..	9	1	2	..	..	..	1	3	17
Russellkonda	3	..	..	..	3
Shillong	3	5	9	9	3	3	..	..	32
Quetta	1	..	12	6	11	9	3	6	1	3	52
GROUP XII.—HILLS																									

* Including Quetta.

TABLE XLIX.

INTERMITTENT FEVER by months, jails, groups and administrations.

TABLE L.

REMITTENT FEVER by months, jails groups and administrations.

JAILS.*	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.													ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Akyab	3	2	1	1	4	6	8	9	3	3	5	2	47	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyaukpyu	8	3	3	...	...	...	1	...	...	...	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...
Sandoway	1	...	...	...	...	...	...	...	...	...	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Myanaung . . . . .	...	...	...	...	...	...	1	1	2	3	1	1	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Henzada . . . . .	...	...	...	...	...	...	3	...	3	...	1	1	8	1	1	...	1	...	2	...	...	...	...	...	...	5
Bassein	10	11	14	2	5	7	5	7	7	7	12	5	92	...	...	...	...	...	...	...	...	...	...	...	...	...
Maubin . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...
Rangoon, Europeans	1	...	5	6	...	1	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
„ Natives	99	120	136	134	35	21	14	18	7	13	14	15	626	35	19	51	20	4	14	15	7	5	6	5	9	190
Insein	22	16	43	24	25	27	37	19	15	26	46	64	364	...	...	...	1	...	...	2	...	3	...	2	...	8
Moulmein	1	...	...	1	1	...	...	2	1	...	...	...	6	...	...	...	...	...	1	...	3	3	...	2	...	9
Tavoy	1	...	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	2
Mergui . . . . .	...	...	...	1	...	...	...	...	1	2	2	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Toungoo	1	2	2	2	1	6	7	7	1	3	1	3	36	...	...	...	...	...	...	...	...	...	...	...	...	...
Shwegyin	2	1	...	2	2	6	2	3	15	3	4	6	46	...	...	...	...	...	...	...	...	1	...	...	...	1
Port Blair	457	406	540	661	803	854	654	368	255	251	279	299	5,827	16	15	19	25	20	20	14	7	12	10	9	7	174
GROUP I.—BURMA COAST AND BAY ISLANDS	606	561	744	834	876	928	732	435	310	311	367	396	7,100	52	35	70	49	24	36	30	16	20	23	14	22	391
Thayetmyo	16	15	16	48	19	12	7	2	3	5	4	6	153	...	...	2	...	1	...	...	...	2	1	...	...	6
Myingyan	8	8	12	43	32	21	59	23	12	13	13	6	250	3	...	...	13	16	3	9	7	2	1	4	3	61
Pakokku . . . . .	...	...	1	...	...	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Yamethin . . . . .	...	3	...	1	4	4	...	...	3	2	1	4	22	...	...	...	...	...	...	...	...	...	...	...	...	...
Taungdwingyi . . . . .	...	...	1	...	...	...	1	1	1	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Pagan	1	...	...	...	...	1	2	...	...	...	1	...	5	...	...	...	1	...	1	1	1	...	...	...	...	4
Minbu	6	1	6	1	1	...	...	...	1	...	4	...	20	...	...	...	...	1	...	...	...	...	...	...	...	1
Magwe . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Mandalay	3	10	27	17	9	13	19	19	13	18	18	10	176	...	1	...	...	...	...	...	...	...	...	...	...	1
Shwebo . . . . .	...	...	1	3	7	5	2	2	3	...	...	...	23	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhamo . . . . .	...	...	5	...	1	4	7	3	4	2	...	1	27	1	...	...	...	2	1	...	...	...	...	...	...	4
Meiktila . . . . .	...	1	...	...	...	...	...	...	1	...	...	...	2	...	1	...	...	...	...	...	...	1	...	...	...	2
Katha	1	...	...	1	1	5	2	5	...	2	1	1	19	...	...	...	...	...	...	...	...	...	...	...	...	...
Kindat	6	...	...	5	3	2	6	7	5	6	3	...	43	...	...	...	...	...	...	...	...	...	...	...	...	...
Prome . . . . .	...	...	...	...	...	...	...	1	1	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP II.—BURMA INLAND	41	38	69	119	77	67	105	64	48	48	45	29	750	4	2	2	14	17	5	11	8	3	5	5	3	79
Sylhet	7	13	9	19	15	16	18	24	11	18	6	10	166	...	...	...	1	...	...	...	...	4	1	...	...	6
Cachar	3	3	4	4	2	...	3	3	2	3	3	2	32	...	...	...	1	...	...	...	...	...	...	...	...	1
Gauhati	3	1	2	3	9	14	5	...	1	1	2	1	42	...	...	...	...	2	1	1	...	1	...	...	...	5
Tezpur	1	5	2	4	4	14	2	7	2	9	7	10	67	...	...	...	...	...	...	...	...	...	...	...	...	...
Sibsagar	3	...	...	...	1	...	2	...	5	2	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Dibrugarh	1	2	1	5	4	3	8	14	18	7	5	7	75	...	...	...	2	...	...	...	2	1	...	...	...	5
Dhubri . . . . .	...	2	1	1	1	2	1	...	...	...	2	2	12	...	...	...	1	...	4	8	...	2	2	...	...	17
Nowgong	3	...	1	1	...	...	1	2	...	4	3	1	16	1	...	...	1	...	...	...	1	...	...	...	...	3
GROUP III.—ASSAM	21	26	20	37	36	49	40	50	39	44	28	33	423	1	...	...	6	2	5	9	...	8	4	2	...	37
Presidency, Euro- peans . . . . .	...	...	1	...	...	...	1	...	...	...	...	1	3	...	...	...	...	1	...	...	...	1	2	...	...	4
Presidency, Natives	25	...	6	3	4	3	26	17	8	5	12	15	124	3	...	2	...	4	...	1	2	7	5	4	4	32
Alipore	3	3	2	3	4	3	5	6	13	11	15	14	82	...	...	...	...	...	...	...	1	...	...	...	...	1
Baraset	3	4	8	9	2	6	6	7	5	6	3	5	64	...	...	...	...	1	...	...	...	...	...	...	...	1
Jessore	8	13	3	9	1	4	...	...	1	7	24	18	88	...	...	...	...	1	1	...	2					

JAILS.	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.													ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	
Monghyr	1	2	2	..	1	7	2	5	8	9	3	5	45	..	..	..	..	..	..	..	..	..	..	..	..	..
Bhagalpur	5	..	..	3	1	1	10	22	6	3	20	35	106	..	..	..	..	..	..	..	..	..	..	..	..	..
Purulia	9	..	..	..	3	2	1	3	..	..	1	..	19	..	..	..	..	..	..	..	..	..	..	..	..	..
Chaibassa . . . . .	..	1	1	5	2	2	1	4	3	4	5	3	31	..	..	..	..	..	..	..	..	..	..	3	3	..
Ranchi	4	3	1	..	3	2	4	11	1	..	1	4	34	..	..	1	..	..	..	..	..	..	..	1	2	..
Palamau . . . . .	..	..	..	2	2	2	5	4	2	5	..	3	25	..	..	..	..	1	1	1	..	..	..	..	3	..
Hazaribagh	3	1	1	..	..	3	2	..	..	8	17	4	39	..	1	2	..	..	..	..	..	1	..	1	5	..
Gaya	36	19	24	14	15	24	36	24	12	23	12	10	249	2	..	..	..	2	3	1	..	..	1	1	10	..
Patna	12	26	10	6	..	2	8	7	9	13	7	7	107	..	1	..	2	2	3	..	..	1	1	..	10	..
Arrah	17	26	23	9	8	9	8	1	1	..	5	..	107	..	..	..	..	..	..	..	..	..	..	..	..	..
Buxar	25	77	41	26	10	26	24	27	15	39	27	23	360	..	..	..	..	..	..	..	..	..	..	..	..	..
Champarun	12	1	8	2	8	12	20	9	4	9	14	20	119	..	..	..	1	..	..	..	..	..	..	..	1	..
Muzaffarpur	5	..	1	1	4	10	7	11	5	..	4	9	57	..	..	..	1	..	1	..	..	1	2	..	4	..
Darbhanga	2	..	..	2	4	2	10	11	3	5	..	2	41	..	..	..	..	1	1	..	2	..	..	..	4	..
Chapra	17	2	9	5	5	7	10	19	8	8	1	1	92	..	..	..	..	..	..	..	1	..	1	..	2	..
Ghazipur	3	4	8	2	3	2	2	2	4	3	..	3	36	..	..	2	..	..	..	..	..	..	..	..	2	..
Benares, Central District	25	8	14	27	15	30	39	26	34	30	35	39	322	..	..	..	..	..	..	..	..	..	..	..	..	..
Chunar	9	2	6	15	4	4	6	9	16	16	7	3	97	..	..	..	..	..	..	..	1	..	2	..	3	..
Mirzapur	80	27	47	5	..	..	62	89	63	45	57	34	509	..	5	52	73	61	15	2	1	2	2	..	213	..
Azamgarh	8	3	8	5	10	11	14	7	2	5	7	7	87	6	..	..	..	2	1	2	..	1	..	1	13	..
Jaunpur	6	14	27	11	5	10	12	15	15	4	14	8	141	..	1	..	1	..	..	..	..	..	..	..	2	..
Gorakhpur	3	4	13	4	9	4	12	9	15	4	5	2	84	..	1	..	..	..	..	..	..	..	..	..	1	..
Basti	13	3	6	4	4	4	2	3	16	15	9	4	83	..	..	..	..	..	..	..	..	..	..	..	..	..
Gonda	35	12	14	7	4	15	28	39	17	23	17	10	221	..	..	..	..	..	..	..	..	..	..	..	..	..
Bahraich	27	39	10	16	15	12	10	30	43	12	14	9	237	..	1	..	..	..	1	..	..	..	..	..	2	..
Fyzabad	21	33	16	13	11	12	25	12	42	31	17	9	242	..	..	..	..	..	..	..	..	..	..	..	..	..
Sultanpur	16	3	2	8	10	10	20	19	14	32	75	36	245	..	..	..	..	..	..	..	..	..	1	..	1	..
Rai Bareilly	1	1	..	..	..	..	..	..	..	1	..	..	3	..	..	1	..	..	..	..	..	..	..	..	1	..
Partabgarh	5	3	5	7	5	..	1	5	26	14	14	4	89	..	..	..	..	..	..	..	..	1	..	..	1	..
Hardoi	4	2	4	3	4	3	10	7	8	9	9	6	69	..	..	..	..	..	..	..	..	..	..	..	..	..
Kheri	4	8	..	1	1	3	..	..	..	..	..	..	17	..	..	1	3	13	28	35	13	14	5	..	115	..
Lucknow, Central District	18	10	5	15	11	11	4	16	4	12	9	10	125	..	..	..	1	1	10	14	7	..	..	1	42	..
Sitapur	10	8	13	7	8	11	15	21	16	5	4	7	125	..	1	1	4	4	10	14	7	..	..	1	..	..
Barabanki	11	4	9	5	6	4	19	15	6	7	5	4	95	..	..	1	2	3	5	..	..	..	..	..	11	..
Unao	3	2	1	2	2	4	3	8	6	9	3	4	47	..	..	1	..	2	1	2	1	..	1	..	8	..
Hamirpur	5	1	2	..	1	..	1	3	1	1	2	2	19	..	..	..	..	..	..	..	..	..	..	..	..	..
Orai	4	..	..	..	..	2	1	3	15	5	4	..	34	..	..	..	..	..	..	..	..	1	..	..	1	..
Fatehgarh, Central District	4	2	4	..	4	9	6	6	9	8	9	10	76	..	..	..	..	..	..	..	..	..	..	..	..	..
Cawnpore	3	4	3	8	4	2	8	12	47	28	4	28	151	..	..	..	..	..	1	..	..	..	..	..	1	..
Fatehpur	17	24	16	22	13	19	83	41	23	32	15	7	312	..	1	..	1	1	6	1	..	..	..	..	10	..
Banda	2	4	6	3	5	5	12	6	9	10	9	8	79	..	..	..	..	1	2	..	3	1	..	..	7	..
Allahabad, Central District	1	..	..	1	..	..	2	..	2	1	3	..	10	..	..	..	..	1	..	..	..	..	..	..	1	..
Etawah . . . . .	..	..	..	..	..	..	5	..	17	2	..	..	24	1	..	..	..	..	..	..	..	..	..	..	1	..
Mainpuri	11	4	3	7	10	14	10	7	25	8	16	15	130	..	..	..	1	..	..	..	..	..	..	..	1	..
Etah	43	19	19	12	18	21	40	47	48	46	31	34	378	..	..	..	..	..	..	..	..	..	..	..	..	..
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	43	15	18	20	14	10	18	16	42	25	24	35	280	..	..	..	..	..	..	..	..	1	..	..	1	..
Aligarh	3	8	18	11	18	25	21	20	17	15	12	6	174	3	4	4	6	1	3	21	..
Bulandshahr	13	6	8	7	4	5	12	9	13	10	7	4	98	1	1	..	2	..
Shahjahanpur	8	8	3	6	11	12	7	5	8	10	18	16	112	1	1	..
Bareilly, Central District	84	57	50	15	66	69	96	81	65	113	41	108	845
Budaon	5	2	2	1	6	11	29	42	51	30	27	31	237
Saharanpur	6	2	1	11	1	..	15	12	4	11	13	6	82	4	1	4	1	3	2	2	1	1	6	25	..
Bijnor	9	13	6	12	5	6	5	21	37	22	10	8	154	1	..	1	2	..
Dehra Dun	1	2	2	1	3	5	2	2	18
Muzaffarnagar	3	..	4	3	11	19	36	26	6	4	117
Moradabad	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meerut	12	16	16	4	3	3	6	18	34	8	4	6	130	..	..	..	..	2	2	..	..	..	..	..	4	..
Delhi	2	2	8	15	10	9	18	34	47	30	14	12	201	..	1	1	1	..	1	..	1	..	4	..
Rohtak	9	9	7	11	7	16	26	66	64	57	56	28	356	1	2	..
Hissar	15	4	2	3	7	15	24	28	16	2	10	12	133	1	1	..
Karnal	4	1	1	4	3	..	2	2	3	5	2	..	27
Umballa	2	1	1	..	1	4	7	3	3	8	7	1	38
Ludhiana	26	7	19	7	17	17	14	11	19	36	36	18	227	1	..	1	2	..
Hoshiarpur	3	2	1	2	..	1	6	21	11	2	49
Jullundur	4	3	1	1	..	1	..	2	12	6	4	..	34
Ferozepore . . . . .	..	1																								

PRISONERS, 1896.

Table XLIX—concluded.

INTERMITTENT FEVER, by months, jails, groups and administrations.

Table L—concluded.

REMITTENT FEVER, by months, jails, groups and administrations.

JAILS.	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.													ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Shahpur	9	3	4	2	4	10	11	4	6	3	2	3	61	...	...	...	...	...	...	...	...	...	...	...	...	...
Montgomery	18	18	42	74	28	39	19	17	15	27	51	32	380	...	2	...	2	1	...	1	...	1	...	...	...	7
Jhang	7	4	6	25	10	13	9	2	4	6	6	21	113	...	...	...	...	...	...	...	...	...	...	...	...	...
Mooltan, Central	27	5	16	36	76	63	42	27	29	43	22	29	415	...	...	...	2	...	1	...	...	...	...	...	...	3
„ District	9	3	8	7	10	8	9	10	4	14	4	7	93	...	...	...	...	1	...	...	...	...	...	...	...	1
Dera Ghazi Khan	1	7	10	8	5	16	17	20	35	19	18	13	169	...	...	...	...	...	1	...	...	...	...	...	...	1
Dera Ismail Khan	6	17	14	18	23	14	1	7	5	8	16	25	154	...	...	...	...	...	15	13	1	...	...	...	...	29
Bannu	6	2	2	2	4	7	9	3	3	3	2	4	47	...	...	...	...	...	...	...	...	...	1	...	...	1
Kohat	7	3	5	10	2	4	6	4	4	10	8	4	67	...	...	...	1	...	...	...	1	...	...	...	...	2
Peshawar	18	12	19	12	18	21	17	18	56	122	96	39	448	...	...	...	...	...	...	...	1	1	...	...	...	2
Kurrachee	3	1	1	4	...	2	5	3	9	15	4	19	65	...	...	...	...	1	...	1	...	...	...	...	...	2
Hyderabad	6	...	...	5	2	2	...	3	3	4	9	9	43	...	...	...	...	...	...	...	...	...	...	...	...	...
Sind Gang	3	...	9	8	1	2	4	5	2	16	19	4	73	...	1	...	1	...	1	...	2	...	...	...	...	5
Shikarpur	11	3	5	...	10	3	3	7	6	5	5	4	62	...	...	2	2	...	...	...	...	...	...	...	...	4
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY AND N.- W. RAJPUTANA	131	78	141	211	193	203	152	130	181	295	262	213	2,190	...	3	2	8	3	17	16	4	2	1	1	...	57
Muttra	5	2	...	...	2	...	6	6	6	7	4	4	42	...	1	...	...	...	...	...	1	2	...	...	...	4
Agra, Central	32	30	30	24	30	23	58	44	44	53	34	18	420	...	...	...	...	...	...	...	...	...	...	...	...	...
„ District	7	3	6	4	3	6	8	11	11	20	15	20	114	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhansi	10	2	3	5	3	3	5	3	12	10	5	1	62	...	...	2	...	...	...	...	...	...	...	...	...	2
Lalitpur	14	3	4	3	10	2	6	4	8	8	6	6	74	...	...	...	...	...	1	...	1	3	...	...	...	5
Ajmere	6	...	...	...	...	1	...	...	2	2	1	1	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Ahmedabad	18	5	9	14	4	9	19	21	63	61	22	28	273	1	...	...	...	...	1	...	1	1	1	...	...	5
Rajkot	7	...	...	...	...	...	6	...	5	5	2	5	30	1	...	...	...	...	...	...	...	...	...	...	...	1
GROUP VIII.—S.-E. RAJPUTANA, CEN- TRAL INDIA AND GUJARAT	99	45	52	50	52	44	108	89	151	166	89	83	1,028	2	1	2	...	...	...	2	1	4	4	1	...	17
Dhulia	3	1	2	2	1	1	3	6	3	2	11	11	46	...	...	...	...	...	...	...	...	...	...	...	...	...
Yerrowda	66	36	25	16	21	78	73	93	86	52	18	16	580	1	...	...	...	...	...	...	...	...	...	...	...	1
Dharwar	6	6	6	4	10	7	4	1	7	4	10	8	73	...	...	...	...	...	...	...	1	...	...	...	...	1
Bijapur District	26	6	33	19	6	5	7	16	11	14	5	6	154	...	...	...	...	...	...	...	...	1	...	...	...	1
Deccan Gang	1	14	4	7	4	7	18	22	15	13	13	4	122	...	6	2	...	1	...	2	...	2	1	...	...	14
Amraoti	1	2	1	2	5	1	4	4	22	7	5	4	58	...	...	...	...	...	...	1	...	...	...	...	...	1
Akola	7	4	2	2	1	1	8	11	5	7	2	4	54	3	2	5	1	1	...	...	...	...	...	...	...	12
Ellichpur . . . . .	...	2	1	...	...	...	3	16	13	5	8	4	52	...	...	...	...	...	...	...	...	...	...	...	...	...
Buldana	2	...	2	2	2	1	1	1	2	9	1	1	24	...	...	...	...	...	...	...	...	...	...	...	...	...
Basim	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Yeotmahl	12	...	...	...	...	...	1	4	3	8	8	4	40	...	...	...	...	...	...	...	...	...	...	...	...	...
Secunderabad	5	3	3	2	...	2	3	1	4	4	9	2	38	...	...	...	...	...	...	...	...	...	...	...	...	...
Jubbulpore	13	4	10	7	13	9	23	63	81	72	30	23	348	1	...	...	...	...	...	...	...	...	...	...	...	1
Saugor	2	5	2	...	...	5	7	13	20	13	6	3	76	...	...	...	1	1	...	1	1	4	7	...	...	15
Damoh	3	2	3	4	1	...	2	5	10	9	2	5	46	...	...	...	...	...	...	...	...	...	...	...	...	1
Sambalpur	1	3	...	...	1	...	...	...	...	...	1	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Raipur	13	2	6	5	7	1	7	8	12	15	7	4	87	...	...	1	1	1	...	...	...	1	...	...	...	4
Bilaspur	1	1	...	2	1	3	...	6	6	10	5	7	42	...	...	...	...	...	...	...	...	...	...	...	...	...
Mandla	1	1	2	1	...	...	6	3	3	...	1	1	19	...	...	1	...	...	...	...	...	...	2	...	...	3
Seoni	1	3	3	...	...	2	...	3	16	16	10	6	60	...	...	...	1	...	...	...	...	...	...	...	...	1
Chhindwara	1	4	1	1	1	1	1	8	2	18	...	...	38	1	...	4	...	...	...	...	...	...	...	...	...	5
Betul	2	...	...	...	1	1	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	1	1	...	...	2
Narsinghpur	9	6	11	17	7	2	11	41	35	34	23	2	198	...	...	...	1	1	...	...	...	1	...	...	...	3
Hoshangabad	3	1	1	3	3	6	2	4	3	6	4	...	36	...	...	...	...	...	...	...	...	...	...	...	...	...
Nimar . . . . .	...	...	...	2	...	...	...	2	5	3	4	6	22	...	...	1	...	...	...	...	...	...	...	...	...	1
Nagpur	5	3	23	16	23	21	49	88	124	99	35	23	509	...	...	...	...	1	2	1	1	1	...	...	...	6
Bhandara . . . . .	...	2	...	2	2	3	2	5	7	9	7	7	46	...	...	...	...	...	...	...	...	...	...	...	...	...
Wardha . . . . .	...	...	...	...	...	...	2	...	2	1	1	2	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Chanda . . . . .	...	2	1	2	3	5	3	1	3	4	4	1	29	...	...	...	...	...	...	...	...	...	...	...	...	...
Sironcha . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Balaghat . . . . .	...	1	4	1	1	1	2	2	1	1	2	1	17	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IX.— DECCAN	186	115	146	119	114	163	242	427	501	435	232	155	2,835	6	8	14	4	5	2	3	6	5	14	3	2	72
Thana	11	6	13	6	6	11	20	18	37	20	17	40	205	3	3	2	...	1	...	...	...	2	1	5	23	40
Bombay, Common . . . . .	...	1	...	...	1	...	3	2	1	1	1	1	11	...	...	...	...	...	...	...	...	...	...	...	...	1
„ House of Correction	3	4	6	3	3	1	1	4	1	1	8	3	38	...	...	...	...	...	...	...	...	...	...	...	...	...
Ratnagiri	2	1	2	3	2	...	1	1	2	...	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Karwar	1	...	...	1	...	...	1	1	...	...	...	1	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Mangalore . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Cannanore . . . . .	...	1	...	1	2	1	...	2	...	...	1	...	8	...	6	...	...	1	...	...	...	...	...	...	...	7
GROUP X.—WES- TERN COAST	17	13	21	14	14	13	27	28	41	22	27	45	282	3	9	2	1	1	...	1	...	2	1	5	24	49

JAILS AND ADMINISTRATIONS.	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.													ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Madras Debtors', Natives	1	...	1	1	...	...	2	...	3	2	1	1	12	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras Peniten- tiary, Natives	22	20	12	4	...	4	5	4	4	4	1	2	82	...	...	...	...	...	...	1	...	...	...	...	...	1
Bellary	22	34	16	2	4	18	9	5	7	12	13	12	154	...	...	...	...	...	...	...	1	...	1	1	2	5
Vellore	16	6	15	9	13	14	18	2	6	14	19	26	158	...	...	...	...	...	1	...	...	...	...	...	...	1
Cuddalore	5	...	...	...	...	...	...	...	2	...	1	2	10	...	...	...	1	1	...	...	...	...	...	...	...	2
Coimbatore . . . . .	...	2	1	1	1	1	2	5	...	...	3	4	20	...	...	...	...	...	...	...	...	...	...	...	...	...
Madura . . . . .	...	...	...	4	5	4	2	5	2	...	3	4	29	...	...	...	...	...	...	...	...	...	...	...	...	...
Trichinopoly	26	26	14	11	6	3	9	10	18	17	8	15	163	...	1	...	...	...	...	2	1	...	...	...	...	4
Salem	1	5	3	3	...	3	1	1	2	...	1	...	20	...	...	...	...	...	...	...	...	...	...	...	...	...
Tanjore	3	1	3	3	2	1	5	1	2	3	1	4	29	...	...	...	...	...	...	...	...	...	...	...	...	...
Palamcottah	1	...	...	...	...	...	...	...	...	...	1	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajamundry	10	13	21	14	7	16	14	20	34	18	18	25	210	2	2	1	...	...	...	...	...	...	...	1	...	6
Vizagapatam . . . . .	...	1	2	1	...	...	3	3	1	4	...	...	15	...	...	...	...	...	1	...	1	...	...	...	...	2
Nellore . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Berhampur . . . . .	...	...	4	2	2	5	...	4	1	1	...	...	19	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XI.— SOUTHERN INDIA	107	108	92	55	40	70	70	60	82	75	70	96	925	2	3	1	1	1	2	1	3	2	1	1	3	21
Darjeeling	3	...	1	5	5	2	1	2	5	6	3	2	36	...	...	...	...	...	...	...	...	...	...	...	...	...
Almora	1	1	1	1	...	1	...	1	5	...	3	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Simla . . . . .	...	1	2	...	1	1	3	2	1	...	1	...	12	...	...	...	1	...	...	...	...	...	...	...	...	1
Dharmasala	3	...	...	3	2	8	4	8	6	3	2	...	39	...	...	...	...	...	...	...	...	...	...	...	...	...
Abbottabad	4	1	2	7	1	5	4	10	19	6	2	...	61	...	...	...	...	...	...	...	...	...	...	...	...	...
Russellkonda . . . . .	...	...	...	...	...	1	...	2	1	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Shillong . . . . .	...	...	...	2	1	...	...	...	...	...	...	...	3	...	...	...	...	...	...	1	...	...	...	...	...	1
Quetta	2	5	3	5	...	2	1	1	...	5	3	1	28	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XII.— HILLS	13	9	9	23	10	20	13	26	37	20	14	3	197	...	...	...	...	1	...	...	1	...	...	...	...	2
Extra India:— Aden	4	4	1	3	1	1	1	1	...	...	1	...	17	...	...	...	...	...	...	...	...	...	...	...	...	...
INDIA*	2,489	1,853	2,220	2,292	2,173	2,545	2,831	2,742	3,112	3,302	2,710	2,386	30,655	89	71	121	164	173	166	166	127	128	103	80	91	1,479
ANDAMANS	457	406	540	661	803	854	654	368	255	251	279	299	5,827	16	15	19	25	20	20	14	7	12	10	9	7	174
BURMA	190	193	273	292	150	141	183	131	103	108	133	126	2,023	40	22	53	38	21	21	27	17	11	18	10	18	296
ASSAM	21	26	20	39	37	49	40	50	39	44	28	33	426	1	...	...	6	2	5	9	1	8	4	2	...	38
BENGAL	345	288	238	231	218	302	355	363	362	549	515	491	4,257	10	8	8	12	20	12	26	17	24	22	22	23	204
N.-W. P. AND ODDH	662	434	480	376	383	436	786	819	1,040	872	693	608	7,589	7	2	20	64	97	82	63	67	59	26	24	14	525
PUNJAB	444	252	382	466	396	495	435	453	598	833	667	462	5,883	2	3	2	10	5	21	20	7	4	6	3	...	83
BOMBAY	171	88	116	95	72	128	169	204	251	213	145	159	1,811	6	10	6	3	2	2	2	5	3	5	7	24	75
BERAR AND SECUN- DERABAD	29	11	9	8	8	5	20	37	49	40	33	19	268	3	2	5	1	1	...	...	1	...	...	...	...	13
CENTRAL PRO- VINCES	55	41	67	63	64	60	117	252	330	310	142	91	1,592	2	...	7	3	4	1	3	2	5	11	2	2	42
MADRAS	107	109	92	56	42	72	71	64	83	75	71	96	938	2	9	1	2	1	2	2	3	2	1	1	3	29
NON-BRITISH JAILS—																										
Sadra . . . . .	...	...	1	...	...	...	1	1	1	...	...	...	4	...	...	...	...	...	1	...	...	...	...	...	...	1
Kolhapur	3	5	6	10	3	9	20	3	3	6	6	2	76	...	...	...	...	...	...	...	...	...	...	...	...	...
Savantvadi	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Mercara	1	...	...	...	1	1	...	...	...	3	2	2	10	...	1	...	1	...	1	...	...	...	...	...	...	3

* Including Ajmere and Quetta.

TABLE LI.

PNEUMONIA by months, jails, groups and administrations.

TABLE LII.

DYSENTERY by months, jails, groups and administrations.

JAILS.*	ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												ADMISSIONS FROM DYSENTERY IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	J July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Akyab	3	1	..	..	..	..	..	..	..	..	..	..	4	19	18	8	13	5	13	19	14	16	9	1	5	140
Kyaukpyu . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	11	..	..	..	..	..	..	1	1	1	14
Sandoway . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	1	5	1	..	1	..	1	3
Myanaung . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	13
Henzada . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Bassein . . . . .	..	..	..	..	..	..	..	1	1	1	1	1	5	6	4	2	3	9	5	6	7	3	7	4	1	57
Maubin . . . . .	..	..	2	..	..	..	..	..	..	1	..	..	3	..	1	..	..	2	3	3	2	1	1	..	..	14
Rangoon, Euro- peans . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	2
Rangoon, Natives . . . . .	..	..	1	1	1	3	2	3	..	1	1	3	16	22	17	5	20	9	31	40	7	1	3	6	4	165
Insein	1	3	7	1	..	..	2	..	1	..	1	..	16	4	1	1	2	8	13	22	12	6	8	19	13	109
Moulmein	1	..	..	1	1	..	1	1	..	..	..	..	5	3	..	2	..	3	10	18	16	17	5	7	12	93
Tavoy . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	..	..	..	1	1	2	1	8
Mergui . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	1	..	4
Toungoo . . . . .	..	1	1	1	..	..	..	..	..	..	..	..	3	..	..	2	..	2	4	1	5	1	4	10	1	30
Shwegyin . . . . .	..	..	..	..	..	..	..	..	..	..	..	1	1	3	1	..	3	7	6	8	5	..	1	3	..	37
Port Blair	2	1	2	1	7	5	2	2	1	3	2	4	32	35	22	37	55	43	125	90	84	47	38	56	93	725
GROUP I.—BURMA COAST AND BAY ISLANDS	7	6	13	5	9	8	7	7	3	6	5	9	85	94	66	70	98	90	212	213	153	94	81	112	132	1,415
Thayetmyo	1	1	1	6	..	1	1	1	..	1	2	2	17	2	..	..	..	1	5	..	3	1	1	..	..	13
Myingyan	1	2	3	4	3	7	10	1	..	..	..	..	31	4	1	5	5	11	25	43	14	4	1	2	2	117
Monywa . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	2
Yamethin . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	5	1	1	1	10	6	3	3	2	..	..	..	32
Taungdwingyi . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	2
Pagan . . . . .	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1
Minbu . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Magwe . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	1	..	..	4
Mandalay . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	7	2	8	14	11	10	11	9	16	21	24	21	154
Shwebo	1	..	1	..	..	..	..	1	..	1	..	3	7	..	..	..	..	1	..	..	..	1	2	..	..	4
Bhamo . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	3	..	..	4	4	4	1	2	1	1	22
Meiktila	1	..	..	1	..	..	..	1	..	..	..	..	3	1	1	..	..	..	1	1	..	..	..	2	..	6
Katha	1	..	..	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1
Kindat . . . . .	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	1
Prome . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	3	1	..	..	..	6
GROUP II.— BURMA INLAND	5	3	6	11	3	8	11	4	1	3	2	5	62	20	6	17	21	35	53	67	39	26	28	29	25	366
Sylhet . . . . .	..	..	..	1	2	..	..	..	..	..	..	..	3	5	6	1	3	9	10	5	11	3	4	2	1	60
Cachar . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	3	2	3	1	..	6	5	3	3	2	32
Gauhati . . . . .	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	1	..	1	2	9	8	3	2	1	2	31
Tezpur	2	..	2	..	..	..	..	..	..	..	..	..	2	..	..	..	1	4	3	4	3	..	..	1	1	17
Sibsagar . . . . .	..	..	1	..	..	..	..	..	1	..	..	..	1	..	..	..	1	1	..	1	..	..	5	6	3	16
Dibrugarh . . . . .	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..	2	4	8	1	12	15	3	6	5	57
Dhubri . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	1	..	4
Nowgong . . . . .	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	1	1	..	7
GROUP III.— ASSAM	2	..	4	1	2	..	1	..	1	2	..	..	13	8	11	5	8	22	25	20	41	27	21	21	15	224
Presidency, Euro- peans . . . . .	..	..	..	..	1	..	..	..	..	..	..	..	1	1	..	1	1	1	1	1	2	..	1	1	1	11</

JAILS.	ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												ADMISSIONS FROM DYSENTERY IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Monghyr . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	4	2	4	6	1	4	...	6	4	9	4	2	46
Bhagalpur . . . . .	...	...	...	...	...	1	1	1	1	...	2	3	9	1	...	3	1	...	1	7	11	4	...	4	2	34
Purulia . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	3	5	4	6	...	...	...	20
Chaibassa . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	1	...	4	...	3	6	1	8	4	...	41
Ranchi	1	...	...	...	...	...	...	...	...	...	...	...	1	1	3	6	1	...	1	1	2	10	7	2	...	34
Palamau . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
Hazaribagh . . . . .	...	1	1	...	...	...	...	1	1	1	1	1	7	...	5	1	2	1	2	1	3	...	1	3	...	19
Gaya . . . . .	...	1	...	...	...	...	...	1	...	...	...	...	2	2	3	4	1	1	6	7	11	13	4	3	9	64
Patna . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1	12	...	4	4	4	6	9	8	10	7	3	4	71
Arrah . . . . .	...	1	...	...	...	...	...	...	...	...	...	1	2	4	4	5	7	6	1	1	1	2	1	1	...	33
Buxar	2	1	...	...	...	...	...	...	...	...	...	...	3	4	2	5	6	2	2	9	2	6	3	1	...	42
Champarun . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	3	1	3	10	15	6	8	16	22	15	13	8	120
Muzaffarpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	2	3	9	2	6	1	4	30
Darbhanga . . . . .	...	...	...	...	1	...	...	...	1	...	...	1	3	1	5	10	13	6	13	22	23	19	13	8	4	137
Chapra . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	4	6	5	9	5	2	9	22	14	4	4	8	92
Ghazipur	4	2	...	2	1	...	2	...	1	1	1	...	14	3	...	1	1	1	...	...	1	...	...	...	...	7
Benares, Central District	3	...	1	...	...	1	3	...	1	3	...	2	12	3	...	1	4	1	3	5	7	2	6	12	2	45
Chunar	25	7	...	...	...	...	...	1	...	2	1	5	39	6	1	1	2	...	1	2	6	2	9	4	7	41
Mirzapur	9	6	3	2	6	5	1	...	2	1	2	4	41	7	3	7	1	2	1	8	16	6	4	5	6	66
Azamgarh . . . . .	...	...	...	...	1	...	...	...	...	...	1	...	2	4	1	1	3	6	3	4	...	4	5	3	3	37
Jaunpur	1	...	1	...	...	...	...	1	...	...	...	1	4	...	1	4	4	1	1	2	1	3	1	1	1	20
Gorakhpur . . . . .	...	...	...	1	...	...	...	2	1	3	3	1	11	3	...	2	2	1	2	8	14	46	29	14	4	125
Basti	7	1	1	1	...	...	...	3	2	1	...	1	17	5	4	6	5	6	3	2	10	5	6	8	11	71
Gonda . . . . .	...	1	1	...	...	...	2	1	...	3	1	...	9	6	1	2	5	5	1	1	6	3	5	4	3	42
Bahraich . . . . .	...	4	1	...	...	...	...	...	...	1	...	1	7	1	1	3	...	4	15	19	14	12	10	1	4	84
Fyzabad . . . . .	...	1	1	1	...	1	1	3	7	...	...	...	15	1	1	2	3	...	1	1	5	9	5	5	2	35
Rai Bareilly	2	...	...	...	...	...	...	...	...	1	...	...	3	1	...	...	1	...	...	...	...	...	...	4	...	6
Partabgarh . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	2	1	1	...	1	...	...	...	...	...	1	3	9
Hardoi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	4	2	1	...	1	...	...	...	...	1	14
Kheri	1	2	2	1	1	3	2	1	...	...	1	1	15	2	3	5	13	6	3	9	3	5	1	2	3	55
Lucknow, Central District	1	1	3	1	1	2	...	...	1	1	...	...	10	1	1	1	4	1	...	1	4	5	6	1	4	29
„ District	1	1	1	...	2	1	...	...	...	...	1	3	10	2	4	3	1	...	1	1	2	...	1	2	11	28
Sitapur	4	1	...	2	...	1	1	...	...	...	3	1	13	2	...	...	1	1	...	2	4	2	4	5	1	22
Barabanki	1	...	1	...	1	...	...	...	...	...	...	...	3	...	2	...	...	...	1	...	...	...	...	...	...	3
Unao	1	...	...	...	...	...	1	...	...	...	...	2	5	...	...	...	...	...	1	...	...	2	3	...	...	10
Hamirpur	4	...	...	2	...	1	1	...	...	...	...	...	8	3	2	...	...	2	5	10	6	5	4	2	5	44
Orai . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	...	...	3	7	2	1	1	4	19
Fatehgarh, Central District	1	4	7	1	1	2	...	1	1	1	4	1	23	...	...	5	4	11	9	48	31	20	21	12	14	175
„ District	1	1	...	1	1	2	...	1	...	...	1	1	9	...	2	3	5	3	3	4	2	7	13	4	3	48
Cawnpore	1	2	...	1	1	...	1	...	...	...	...	...	7	1	...	3	2	...	...	1	1	1	...	...	1	11
Fatehpur . . . . .	...	...	1	...	1	1	...	...	2	1	1	...	7	3	1	...	4	1	1	1	2	1	3	2	5	24
Banda . . . . .	...	3	2	...	...	...	...	...	...	3	1	...	9	4	...	...	...	...	...	9	7	9	2	8	10	49
Allahabad, Central District	6	2	4	...	2	8	2	6	2	4	3	8	47	...	...	2	2	...	...	...	12	3	5	1	5	30
„ District	5	12	22	6	8	3	1	...	2	4	5	8	76	1	...	2	...	1	...	...	1	1	2	...	1	9
Etawah . . . . .	...	1	...	...	...	1	...	...	...	...	...	1	3	3	1	1	...	...	...	...	...	...	...	...	...	6
Mainpuri	1	1	...	...	...	...	...	...	...	...	...	1	3	...	...	...	2	1	...	...	1	...	...	...	...	5
Etah	2	...	...	...	1	...	...	...	...	...	...	1	4	1	...	...	...	...	...	...	...	...	...	...	...	2
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	83	58	53	24	31	35	19	24	25	32	40	44	468	110	66	113	139	105	104	229	288	270	228	162	162	1,976
Aligarh	5	5	1	1	...	...	1	1	...	...	...	...	14	3	7	5	4	4	4	1	3	4	4	3	4	46
Bulandshahr . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	3	...	...	1	...	...	...	...	4	3	2	1	1	13
Shahjahanpur . . . . .	...	...	4	3	2	3	1	...	1	...	2	1	17	...	1	...	3	...	2	...	4	4	2	1	1	19
Bareilly, Central District	7	6	18	10	10	15	21	4	4	14	18	22	149	...	3	2	1	2	4	2	4	2	5	1	2	28
„ District	29	38	13	7	6	2	3	3	14	11	15	15	156	5	2	1	1	1	2	1	6	7	5	4	...	35
Budaon	1	1	2	1	1	2	1	1	...	...	...	4	14	...	...	1	4	...	1	...	1	3	4	2	1	17
Saharanpur	18	5	5	6	...	...	...	...	...	...	4	1	39	...	1	1	2	8	...	1	1	2	1	1	...	18
Bijnor . . . . .	...	1	...	...	...	...	2	2	1	3	...	1	10	...	...	...	1	1	2	1	...	...	...	1	...	6
Dehra Dun . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	1	1	2	...	1	...	5
Muzaffarnagar	5	2	...	...	...	...	4	...	1	1	1	2	12	3	1	...	...	2	1	...	1	1	6	6	1	22
Moradabad	3	...	1	...	1	2	4	...	1	...	...	...	16	1	2	2	4	3	1	3	5	9	2	3	1	36
Meerut	1	2	...	1	...	1	...	...	...	1	...	4	10	1	...	1	2	...	1	...	1	1	2	2	...	11
Delhi	2	1	1	1	...	2	...	2	...	...	1	1	11	8	4	1	...	...	1	4	4	...	1	...	2	25
Rohtak	6	...	...	...	...	...	...	...	...	...	...	...	6	1	...	1	1	...	1	3	2	2	...	1	1	14
Hissar	1	...	1	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Karnal . . . . .	...	...	...	...	3	...	2	...	1	...	...	...	6	2	...	...	...	...	...	...	4	4	2	9	...	21
Umballa	8	1	3	...	1	...	...	...	...	...	1	1	15	2	4	9	7	3	4	2	3	5	3	4	3	49
Ludhiana . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	1	...	...	...	...	4
Hoshiarpur . . . . .	...	2	1	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	1	...	...	1
Jullundur	1	1	...	...	...	...	...	1	...	...	1	...	4	...	1	2	1	...	1	...	...	1	...	2	2	10
Ferozepore	7	4	...	...	...	...	...	...	1	...	...	1	13	1	...	1	1	1	1	...	1	2	2	2	...	12
Amritsar	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	3	...	...	1	1	2	2	...	4	13
Lahore, Central District	14	4	1	4	1	5	...	1	1	...	3	...	34	3	3	6	3	18	22	7	5	12	11	16	11	117
„ District	1	...	...	1	1	...	2	...	1	1	1	2	10	1	5	2	1	2	3	...	5	6	...	2	6	33
„ Female . . . . .	...	...	...	...	1	...	...	1																		

TABLE LI—concluded.

PNEUMONIA by months, jails, groups and administrations.

TABLE LII—concluded.

DYSENTERY by months, jails, groups and administrations.

JAILS.	ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												ADMISSIONS FROM DYSENTERY IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Shahpur . . .	6	..	3	..	..	..	..	..	..	..	..	1	10	1	..	3	1	1	..	1	1	..	1	..	..	9
Montgomery . . .	..	1	1	1	..	..	..	..	..	..	..	2	5	6	2	10	11	10	2	4	4	2	..	3	5	54
Jhang . . .	..	2	..	..	3	..	..	..	..	..	1	1	6	3	8	8	5	5	..	1	1	3	1	3	5	43
Mooltan, Central. . .	5	..	1	..	1	1	1	..	..	..	..	..	9	7	3	4	4	1	3	2	5	4	8	2	5	48
„ District . . .	3	..	1	..	..	..	..	1	..	..	1	2	8	..	..	1	1	..	..	..	1	2	..	1	..	7
Dera Ghazi Khan. . .	7	7	2	..	..	..	1	..	..	..	1	..	18	..	..	..	1	..	..	..	..	..	..	2	..	3
Dera Ismail Khan. . .	..	..	1	1	..	..	..	..	..	..	..	..	2	1	..	4	3	7	1	3	1	3	1	2	1	27
Bannu . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	1	2	..	..	5
Kohat . . .	3	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	1	..	..	..	1	..	..	..	..	2
Peshawar . . .	1	1	..	..	..	..	..	..	1	..	..	..	7	1	..	5	2	..	3	3	1	6	5	1	1	32
Kurrachee . . .	1	..	..	..	..	..	..	..	3	2	..	1	3	..	4	4	1	..	1	1	4	1	1	2	1	17
Hyderabad . . .	3	..	..	2	1	2	3	..	2	8	3	3	27	..	1	1	..	..	..	..	2	5	1	2	1	13
Sind Gang . . .	4	1	1	..	..	..	..	1	1	2	2	10	22	1	1	..	1	..	..	..	1	..	3	1	..	8
Shikarpur . . .	19	3	1	1	1	..	1	1	1	..	..	13	41	..	1	..	1	2	..	2	3	2	1	..	..	12
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY AND NORTH-WESTERN RAJ-PUTANA . . .	52	15	11	5	5	3	6	3	8	12	8	33	161	20	21	40	33	27	10	17	25	29	25	15	18	280
Muttra . . .	2	..	..	..	1	..	..	..	1	..	1	1	6	..	..	..	..	1	3	2	1	5	1	..	2	15
Agra, Central . . .	16	17	24	10	18	5	10	9	9	6	7	5	136	1	4	11	5	4	7	9	21	14	2	2	4	84
„ District . . .	5	1	3	..	4	7	4	..	1	..	1	2	28	..	1	1	..	1	..	..	2	3	3	1	2	14
Jhansi . . .	..	..	..	..	..	..	..	1	2	2	..	1	6	..	..	..	..	..	1	1	2	2	1	1	..	7
Lalitpur . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	8	3	1	2	..	17
Ajmere . . .	2	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	1	..	1	..	2	2	5
Ahmedabad . . .	7	2	7	2	1	1	5	2	3	5	10	3	48	2	4	..	3	1	10	20	20	15	6	6	10	97
Rajkot . . .	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	1
GROUP VIII.—SOUTH EAST RAJPUTANA, CENTRAL INDIA AND GUJARAT . . .	33	20	34	12	24	13	19	12	16	13	19	12	227	4	9	12	9	7	21	34	55	43	14	12	20	240
Nasik . . .	..	..	..	1	..	..	..	..	..	..	..	1	2	..	..	..	..	..	1	..	..	..	..	..	..	1
Dhulia . . .	..	..	..	..	..	..	..	..	1	1	..	..	2	..	1	..	2	2	..	4	2	4	2	..	2	19
Yerrowda . . .	1	1	..	1	2	..	2	1	1	..	..	..	9	4	3	4	1	8	3	14	19	13	2	5	4	80
Dharwar . . .	..	1	2	..	..	..	1	3	..	1	..	..	8	1	2	2	2	2	3	..	10	1	..	..	..	23
Bijapur District . . .	1	..	1	..	1	1	..	..	..	..	1	1	6	..	..	..	..	1	..	2	3	1	6	2	2	17
Deccan Gang . . .	..	3	..	3	..	..	..	..	..	1	1	2	10	..	2	..	2	1	..	6	5	5	3	1	1	26
Amraoti . . .	..	2	1	..	..	..	..	..	..	..	..	1	4	..	..	..	..	..	2	2	1	1	..	1	..	5
Akola . . .	..	2	6	..	1	..	2	2	..	..	..	..	13	1	..	..	1	..	..	5	2	1	1	1	..	12
Ellichpur . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	2
Buldana . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	2	..	..	1	..	7
Bassim . . .	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Yeotmahl . . .	4	..	1	..	..	..	..	..	..	..	..	..	5	..	..	..	..	..	..	5	11	2	2	..	..	20
Secunderabad . . .	1	1	..	..	2	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	1	..	..	2	..	3
Jubbulpore . . .	3	3	..	1	4	2	3	5	9	2	3	6	41	7	5	6	7	7	12	28	34	28	25	6	6	171
Saugor . . .	4	2	3	1	..	..	..	..	2	2	..	1	15	..	..	1	2	..	3	2	9	7	4	4	2	34
Damoh . . .	..	1	..	1	..	1	..	2	..	1	2	1	9	1	4	2	2	1	6	9	20	20	38	25	13	141
Sambalpur . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	3	4	1	1	..	..	10
Raipur . . .	1	..	..	..	..	..	..	1	..	..	..	..	2	1	..	..	2	2	..	3	13	..	2	5	..	28
Bilaspur . . .	..	2	..	..	..	..	..	..	2	..	..	1	5	..	..	..	..	..	..	7	7	10	6	10	5	45
Mandla . . .	..	..	1	..	..	..	..	..	..	..	..	1	2	..	..	1	..	..	..	1	7	3	1	..	2	15
Seoni . . .	1	1	1	..	..	..	..	..	1	2	2	2	10	..	..	..	..	1	4	10	19	14	16	12	13	89
Chhindwara . . .	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Betul . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	7	4	7	1	1	22
Narsinghpur . . .	1	10	..	5	2	3	..	2	1	1	1	4	30	3	1	3	..	2	5	17	15	5	18	2	6	77
Hoshangabad . . .	..	..	..	..	..	..	..	..	1	..	1	..	2	2	..	..	..	..	..	..	2	1	1	..	..	6
Nimar . . .	..	..	1	..	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	2	1	2	..	..	5
Nagpur . . .	2	..	..	..	..	2	2	2	1	..	..	..	9	2	2	4	2	1	8	11	17	2	1	4	7	61
Bhandara . . .	..	1	..																							

JAILS AND ADMINISTRATIONS.	ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												ADMISSIONS FROM DYSENTERY IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Madras Debtors', Natives . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	2
Madras Penitentiary, Natives	1	1	...	...	2	1	...	...	...	...	...	1	6	2	2	4	3	...	...	3	1	...	2	1	2	20
Madras Penitentiary, Europeans . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	2
Bellary . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	2	1	...	1	1	7	14	20	9	2	1	4	62
Vellore	1	1	1	...	1	...	1	...	...	...	...	1	6	4	7	6	2	1	3	3	10	7	14	23	17	97
Cuddalore . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	5	5	10	1	3	3	2	1	7	4	4	5	50
Coimbatore	1	1	1	2	1	1	...	...	...	...	1	...	8	2	...	3	1	2	5	21	14	11	6	2	3	70
Madura . . . . .	...	...	...	...	...	...	...	...	...	1	1	2	4	1	3	2	4	1	2	1	3	2	2	4	9	34
Trichinopoly . . . . .	...	3	...	...	2	...	...	...	...	1	...	...	6	2	2	6	2	...	1	3	2	6	8	3	...	35
Salem . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...	1	2	2	9	10	9	9	46
Tanjore . . . . .	...	...	...	...	...	...	...	...	...	...	1	1	2	1	1	1	...	...	...	1	1	...	...	...	2	7
Palamcottah . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	1	1	...	...	...	1	...	...	1	8
Rajamundry	1	...	...	...	...	2	...	3	...	1	...	2	9	12	6	11	11	2	2	8	23	15	11	4	3	108
Vizagapatam . . . . .	...	...	...	...	1	...	...	...	...	...	1	...	2	...	...	...	...	2	...	3	5	1	1	1	4	15
Nellore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	4
Berhampur	1	...	...	...	...	1	...	1	...	...	...	...	3	...	...	...	...	...	...	4	3	...	...	...	...	7
GROUP XI.—SOUTHERN INDIA	5	6	2	2	8	2	5	5	...	3	4	7	49	33	30	44	28	13	24	67	86	68	60	53	61	567
Darjeeling . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	6	1	3	3	3	...	...	2	19
Almora . . . . .	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	1	...	1
Simla	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Dharmasala	1	1	...	...	...	...	...	...	...	1	...	...	3	...	...	...	...	4	5	3	2	...	2	...	1	17
Abbottabad	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...	2
Russellkonda . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	1	4	3	1	...	...	...	9
Shillong . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	1	...	...	...	5
Quetta . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	...	...	...	...	1	...	...	...	...	3
GROUP XII.—HILLS	3	1	...	...	...	...	...	...	...	1	1	3	9	1	1	1	...	14	8	11	9	5	2	1	3	56
EXTRA INDIA :—Aden . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1	...	...	3
INDIA*	352	256	235	118	139	129	126	106	118	139	160	223	2,101	524	451	599	662	633	854	1,269	1,370	1,051	975	863	789	10,040
ANDAMANS	2	1	2	1	7	5	2	2	1	3	2	4	32	35	22	37	55	43	125	90	84	47	38	56	93	725
BURMA	10	8	17	15	5	11	16	9	3	6	5	10	115	79	50	50	64	82	140	190	108	73	71	85	64	1,056
ASSAM	2	...	4	1	2	...	1	...	1	2	...	...	13	8	11	5	8	26	25	20	41	28	21	21	15	229
BENGAL	23	40	35	6	16	15	10	18	21	15	16	34	249	201	198	261	300	265	318	488	465	365	367	341	262	3,831
N. W. PROVINCES AND OUDH	172	132	124	64	72	71	65	43	57	73	87	97	1,057	84	56	88	101	84	84	169	228	222	190	140	136	1,582
PUNJAB	76	29	22	10	13	10	8	7	6	7	17	16	221	44	47	73	67	79	64	48	66	80	56	61	65	750
BOMBAY	40	11	13	10	7	6	12	8	12	21	19	36	195	17	24	20	18	23	29	74	100	55	39	29	30	458
BERAR AND SE-CUNDERABAD	7	5	8	...	3	...	2	2	...	...	...	1	28	1	...	...	2	...	...	13	19	6	3	5	...	49
CENTRAL PROVINCES	13	24	6	8	6	8	5	12	17	8	10	16	133	16	13	20	19	17	43	99	168	104	129	71	60	759
MADRAS	5	6	4	3	8	3	5	5	...	4	4	8	55	37	30	44	28	14	26	77	90	70	61	54	62	593
NON-BRITISH JAILS—Sadra . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1
Kolhapur	3	4	...	1	1	...	...	...	...	...	...	...	9	...	3	3	1	5	6	18	5	2	4	2	1	50
Savantvadi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	4	1	...	...	...	...	...	6
Mercara	1	1	...	...	...	...	1	1	...	...	...	...	4	...	...	1	...	1	...	2	...	...	...	...	...	4

* Including Ajmere and Quetta.

IV.—TROOPS AND PRISONERS, 1896.

TABLE LIH.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULA- TION OF INDIA.	
	MEN . . . 70,484				WOMEN 3,254		CHILDREN 5,790		Present . 128,187	Enrolled . 145,692		110,090.	
	Admis- sions.	Constantly sick.	Deaths.	Inval- id-ing.	Admis- sions.	Deaths.	Admis- sions.	Deaths.	Admis- sions.	Deaths.	Inval- id-ing.	Admis- sions.	Deaths.
Small-pox	122	11'49	10	...	53	2	19	3	149	13	...	116	11
Cow-pox	5	'11	...	...	...	...	1	...	5	...	...	34	...
Chicken-pox	8	'39	...	...	3	...	60	...	331	...	...	534	...
Measles	19	1'11	1	...	1	...	240	7	263	1	...	25	1
Epidemic rose rash	15	'39	...	...	2	...	18	...	...	...	...	...	...
Scarlet fever	8	'77	1	...	1	...	6	...	...	...	...	...	...
Dengue	27	'80	...	...	...	...	...	...	...	...	...	12	...
Plague . . . . .	...	...	...	...	...	...	...	...	2	1	...	1	...
Relapsing fever . . . . .	...	...	...	...	...	...	...	...	...	...	...	6	4
Influenza	808	61'03	8	1	30	...	10	...	1,364	38	...	4,141	66
Whooping cough	1	'04	...	...	...	...	44	1	...	...	...	...	...
Mumps	12	'46	...	...	2	...	4	...	1,081	1	...	945	...
Diphtheria	1	'01	...	...	...	...	5	3	3	1	...	1	1
Cerebro-spinal fever	1	'10	...	...	...	...	...	...	...	...	...	7	7
Simple continued fever	2,111	107'14	...	2	60	...	162	4	1,270	4	...	2,812	4
Enteric fever	1,795	259'86	445	36	27	11	37	5	20	5	...	21	7
Cholera	70	'78	03	...	...	...	...	...	131	88	...	253	140
Epidemic diarrhoea . . . . .	...	...	...	...	...	...	...	...	18	...	...	171	15
Dysentery	1,841	127'73	47	81	59	1	77	12	5,063	54	13	10,040	651
Ague	16,363	606'01	5	39	397	1	520	7	34,860	52	11	30,133	57
Remittent fever	977	74'47	28	9	34	2	56	10	2,103	137	2	1,479	118
Malarial cachexia	485	35'03	2	88	15	...	13	...	449	9	35	522	55
Beri-Beri . . . . .	...	...	...	...	...	...	...	...	81	13	1	24	2
Phagedæna . . . . .	...	'05	...	...	...	...	...	...	...	...	...	1	...
Sloughing phagedæna . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Erysipelas	108	6'51	8	1	2	...	2	1	62	2	2	229	21
Pyæmia	1	'02	1	...	1	1	1	1	1	...	1	9	7
Septicæmia	3	'02	3	...	1	1	...	...	1	...	...	3	3
Puerperal septicæmia . . . . .	...	...	...	...	5	4	...	...	...	...	...	...	...
Primary syphilis	11,228	1,022'14	...	6	...	...	...	...	1,253	1	5	499	...
Secondary „	6,888	738'22	13	448	11	...	5	1	1,151	6	75	1,267	15
Gonorrhœa	13,209	1,036'22	1	23	...	...	...	...	1,634	1	9	532	...
Hydrophobia	3	'03	3	...	...	...	1	1	...	...	...	1	1
Splenic fever . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Bothriocephalus latus . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Tænia solium	169	5'62	...	...	7	...	13	...	9	...	...	49	...
„ mediocanellata	9	'33	...	...	...	...	2	...	3	...	...	6	...
Echinococcus hominis . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	1
Ascaris lumbricoides	5	'10	...	...	...	...	16	...	13	...	...	221	...
Filaria Medinensis	4	'20	...	...	...	...	...	...	536	...	...	439	1
„ labialis . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
„ sanguinis hominis . . . . .	...	...	...	...	...	...	...	...	1	...	...	3	...
Dochmius duodenalis . . . . .	...	...	...	...	...	...	...	...	...	...	...	141	2
Kala-azar . . . . .	...	...	...	...	...	...	...	...	...	...	...	10	4
Oxyuris vermicularis	5	'12	...	...	...	...	1	...	3	...	...	11	...
Musca vomitoria	1	'05	...	...	...	...	...	...	...	...	...	1	...
Culex anxifer . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Acanthia rotundata . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Pulex irritans . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Pediculus capitis . . . . .	...	...	...	...	1	...	1	...	1	...	...	...	...
„ vestimenti . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Vegetable parasites (not defined) . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Oidium albicans . . . . .	...	...	...	...	...	...	2	...	2	...	...	6	...
Chionyphe Carteri . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Effects of excessive venery . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Scurvy	18	'81	...	...	...	...	...	...	534	10	13	115	4
Alcoholism	276	10'83	3	1	3	...	...	...	6	...	...	2	...
Delirium tremens	17	1'01	1	...	...	...	...	...	...	...	...	1	...
Immaturity at birth . . . . .	...	...	...	...	...	...	24	24	...	...	...	...	...
Congenital phimosis	1	'20	...	...	...	...	4	...	1	...	...	...	...
Hare-lip . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Impervious intestine . . . . .	...	...	...	...	...	...	1	1	...	...	...	...	...
Malformation of toe	5	'24	...	1	...	...	...	...	...	...	...	...	...
Congenital distortion of toe	1	'06	...	...	...	...	...	...	...	...	...	...	...
Deformity of ankle . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	...
Testicle retained in the abdomen	1	'02	...	...	...	...	...	...	...	...	...	...	...
Debility	1,197	90'77	1	184	834	2	259	12	1,538	6	406	1,798	80
Old age . . . . .	...	...	...	...	...	...	...	...	...	...	2	273	36
Rheumatic fever	76	9'01	...	3	1	...	...	...	48	7	2	47	...
Rheumatism	2,110	158'43	1	44	31	...	10	...	2,489	6	175	1,600	3
Gout	9	'39	...	...	...	...	...	...	...	...	...	1	...
Osteo-arthritis	3	'36	...	3	1	...	...	...	5	...	5	2	...
Non-malignant new growths, not de- fined	1	'01	...	...	...	...	...	...	15	...	1	18	1
Hæmatoma (not defined) . . . . .	...	...	...	...	...	...	...	...	5	...	...	...	...
„ polypoid . . . . .	...	...	...	...	...	...	...	...	1	...	1	...	...
Ganglion . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Pterygium	1	'06	...	...	...	...	...	...	8	...	...	18	...
Fibroma	13	1'49	...	1	...	...	1	...	11	...	1	15	1
Elephantiasis . . . . .	...	...	...	...	...	...	...	...	1	...	...	9	...
Lipoma	3	'11	...	...	...	...	...	...	4	...	...	1	...
Myxoma	1	'25	...	...	...	...	...	...	1	...	1	2	...
Chondroma . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Enchondroma . . . . .	...	...	...	...	...	...	...	...	1	...	...	2	...
Osteoma . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Exostosis	4	'43	...	1	...	...	...	...	1	...	...	...	...
Adenoma . . . . .	...	...	...	...	2	...	...	...	1	...	...	...	...
Mucous polypus	5	'65	...	...	...	...	...	...	3	...	...	...	...
Dermoid cyst	1	'01	...	...	...	...	...	...	...	...	...	1	...
Angelioma	1	'03	...	...	1	...	...	...	...	...	...	...	...
Papilloma . . . . .	...	...	...	...	...	...	...	...	1	...	...	8	...
Warts	188	12'38	...	...	...	...	...	...	6	...	...	5	...
Mucous tubercle	1	'07	...	...	...	...	...	...	...	...	...	...	...
Condyloma	3	'14	...	...	...	...	...	...	2	...	...	21	...
Granulation tumours	1	'10	...	...	...	...	...	...	1	...	...	1	...
Lymphoma	1	'01	...	...	...	...	...	...	...	...	...	...	...
Malignant new growth, not defined	1	'02	...	...	...	...	...	...	...	1	...	2	...
Sarcoma	3	'17	2	1	...	...	...	...	4	...	...	4	2
Carcinoma	1	'04	...	1	1	1	...	...	2	2	...	16	10
Epithelioma	1	'11	...	1	2	1	...	...	2	1	1	3	...
Cancerous tumour of mesentery . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Carcinoma, scirrhus . . . . .	...	...	...	...	...	...	...	...	...	...	...	6	6
„ colloid . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Tuberculosis . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Tubercle of meninges and brain . . . . .	...	...	...	...	...	...	2	2	...	...	...	5	2

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
Tubercle of cerebral membranes	2	*11	2	...	...	...	...	...	...	...	...	...	...
" brain and lungs	1	*01	1	...	...	...	...	...	...	...	...	...	...
" brain, spinal cord and lungs	1	*04	1	...	...	...	...	...	...	...	...	...	...
" lungs	343	58'54	42	141	14	4	2	...	291	73	32	635	279
" lungs and intestines . . . . .	...	...	...	...	...	...	...	...	...	...	...	28	15
" intestines	3	*06	3	...	...	...	1	1	1	1	...	24	9
" peritoneum . . . . .	...	...	...	...	...	...	...	...	5	3	1	...	...
" liver	1	*01	1	...	...	...	...	...	...	...	...	1	...
" mesenteric glands . . . . .	...	...	...	...	...	...	2	...	...	...	...	2	2
" lymph glands	1	*12	1	...	...	...	8	3	6	1	...	3	...
" abdomen . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...
" testicle	2	*30	...	...	...	...	...	...	1	...	...	1	...
" bones . . . . .	...	...	...	...	...	...	...	...	2	...	1	...	...
" knee joint . . . . .	...	...	...	...	...	...	...	...	2	...	2	...	...
Scrofula	56	6'70	1	21	1	...	2	...	27	...	6	76	5
Rickets . . . . .	...	...	...	...	...	...	4	1	...	...	...	...	...
Leprosy . . . . .	...	...	...	...	...	...	...	...	21	...	20	192	26
Purpura	3	*08	2	...	1	...	...	...	1	...	...	...	...
Anæmia	186	14'42	...	22	73	...	27	...	566	17	11	1,239	41
Idiopathic anæmia . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	...
Leucocythæmia . . . . .	...	*14	...	...	...	...	...	...	...	...	...	1	1
Hæmophilia	1	0	...	...	...	...	...	...	...	...	...	...	...
Diabetes mellitus	6	*50	...	2	1	...	...	...	7	1	2	14	1
Congestion of the brain	2	*08	1	...	...	...	...	...	2	...	...	3	3
Hæmorrhage into the brain	2	*05	2	...	...	...	...	...	...	...	...	4	4
Chronic hydrocephalus . . . . .	...	...	...	...	...	...	1	1	...	...	...	...	...
Inflammation of the membranes of brain and spinal cord	2	*06	2	...	1	1	1	1	1	1	...	10	8
" of the brain and its membranes	1	*01	...	...	...	...	2	1	1	2	...	1	...
" of the cerebral mem- branes	11	1'47	2	4	1	1	5	3	7	6	1	14	10
" of the brain . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	1
" of the spinal cord and its membranes . . . . .	...	*30	...	...	...	...	...	...	...	...	...	...	...
Spinal meningitis . . . . .	...	...	...	...	...	...	...	...	3	1	...	...	...
Myelitis	2	*48	...	1	...	...	2	...	2	...	1	1	...
Neuritis	6	*67	...	1	3	...	...	...	10	...	1	1	...
Abscess of the brain	2	*01	2	...	...	...	...	...	1	1	...	5	5
Softening of the brain . . . . .	...	...	...	...	...	...	...	...	...	...	...	3	1
Sclerosis, not defined . . . . .	...	...	...	...	...	...	...	...	1	...	1	5	...
" of the brain . . . . .	...	*08	...	1	...	...	...	...	...	...	...	...	...
" of the cerebrum and the spinal cord	1	*14	...	1	...	...	...	...	...	...	...	...	...
" of the spinal cord	3	*25	...	1	...	...	...	...	2	...	1	...	...
" of the anterior cornua of the grey matter of the spinal cord . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
" of the lateral columns	1	*19	...	...	...	...	...	...	...	...	...	1	...
" of the posterior columns	3	1'03	...	3	...	...	...	...	1	...	1	6	...
Apoplexy	8	*74	...	4	1	1	...	...	5	...	1	12	1
Paralysis	5	*39	3	...	...	...	...	...	5	4	1	14	15
Paralysis	6	1'32	...	1	1	1	...	...	7	...	1	5	2
Hemiplegia	15	3'08	1	7	2	...	1	...	21	4	4	29	5
Paraplegia	10	1'54	1	2	...	...	...	...	7	2	1	28	4
Local paralysis	13	1'36	...	2	...	...	...	...	36	...	4	21	...
Ophthalmoplegia externa . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Acute ascending paralysis . . . . .	...	...	...	...	...	...	...	...	...	...	1	2	...
Anæsthesia . . . . .	...	...	...	...	...	...	...	...	12	...	...	...	...
Local anæsthesia . . . . .	...	...	...	...	...	...	...	...	7	...	...	1	...
Eclampsia	1	*09	...	...	2	1	...	...	...	...	...	3	1
Infantile convulsions . . . . .	...	...	...	...	...	...	51	37	...	...	...	...	...
Laryngismus stridulus . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	...
Spasm of muscle	1	*02	...	...	...	...	...	...	...	...	...	1	...
Histrionic spasm . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Stammering	1	*18	...	1	...	...	...	...	...	...	...	...	...
Wry-neck	11	*37	...	...	...	...	...	...	12	...	...	7	...
Paralysis agitans . . . . .	...	*10	...	1	...	...	...	...	2	...	1	6	1
Aphasia	1	*01	...	1	...	...	...	...	1	...	...	...	...
Hyperæsthesia . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Local hyperæsthesia . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Neuralgia	355	20'06	...	2	18	...	1	...	411	...	15	174	...
Vertigo	25	1'73	...	2	2	...	...	...	11	...	1	12	...
Megrim	9	*23	...	...	1	...	...	...	58	...	...	50	...
Tetanus . . . . .	...	...	...	...	1	1	2	1	3	1	...	10	7
Tetany . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Epilepsy	76	10'18	...	33	3	...	5	...	58	2	14	157	9
Chorea . . . . .	...	...	...	...	...	...	1	...	4	...	2	4	...
Hysteria	1	*03	...	...	19	...	...	...	4	...	...	11	...
Hystero-epilepsy	2	*70	...	1	1	...	...	...	...	...	...	...	...
Catalepsy . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Somnambulism	1	*08	...	1	...	...	...	...	...	...	...	...	...
Syncope . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	...
Insanity	5	1'56	...	2	1	...	...	...	10	...	5	4	...
Mania	21	5'50	...	17	1	...	...	...	19	...	7	70	2
Melancholia	39	12'84	1	33	2	...	...	...	11	...	3	47	1
Dementia	27	8'04	...	21	1	...	...	...	15	...	12	18	...
Idiocy . . . . .	...	...	...	...	...	...	...	...	...	...	...	4	...
Epileptic insanity . . . . .	...	...	...	...	...	...	...	...	...	...	...	5	...
Senile insanity . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Toxic insanity . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
" " from alcohol	1	*24	...	1	...	...	...	...	4	...	...	...	...
" " from Indian hemp . . . . .	...	...	...	...	...	...	...	...	2	...	2	...	...
Consecutive insanity . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	...
Hyperæmia of the conjunctiva . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Ecchymosis	1	*01	...	...	...	...	...	...	6	...	...	18	...
Chemosis . . . . .	...	...	...	...	...	...	...	...	2	...	...	1	...
Conjunctivitis	536	29'03	...	2	27	...	154	...	2,502	...	13	2,636	...
" granular	10	*75	...	...	4	...	2	...	95	...	4	54	...
Keratitis	11	*90	...	...	...	...	2	...	69	...	6	66	...
Ulcer of the cornea	37	3'95	...	4	2	...	3	...	210	...	9	247	...
Opacity	6	*51	1	...	8	...	9	17	...
Staphyloma	3	*24	5	...
Scleritis	3	*14	1	2	...

DETAIL of DISEASES.

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DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
Traumatic aneurysm	...	...	...	...	...	...	...	...	...	...	...	1	1
Thrombosis	...	...	...	...	1	1	...	...	...	...	...	...	...
Embolism	...	...	...	...	...	...	...	...	...	...	...	1	1
Phlebitis	21	1'14	...	2	2	...	...	...	4	...	...	8	...
Phlegmasia dolens	13	1'54	...	3	1	...	...	...	...	...	...	...	...
Varix	49	3'06	...	8	...	...	...	...	32	...	23	2	...
Obstruction of veins	4	'50	...	1	...	...	...	...	...	...	...	1	...
Thrombosis	4	'19	...	...	1	...	...	...	2	...	...	...	...
Nævus	...	...	...	...	...	...	...	...	...	...	...	2	...
Varicose aneurysm	...	...	...	...	...	...	...	...	...	...	1	...	...
Croup	...	...	...	...	...	...	6	2	...	...	...	...	...
Hay asthma	1	'02	...	...	...	...	...	...	...	...	...	...	...
Œdema glottidis	...	...	...	...	...	...	...	...	1	1	...	2	2
Laryngitis	35	2'31	...	2	3	...	4	...	66	3	...	23	2
Necrosis of cartilages of larynx	1	'01	1	...	...	...	...	...	...	...	...	...	...
Aphonia	1	'30	...	...	...	...	...	...	1	...	...	1	...
Bronchitis	1,631	80'30	2	9	69	...	406	14	2,929	42	51	2,885	45
Dilatation of bronchi	1	'04	...	...	...	...	...	...	1	...	...	...	...
Spasmodic asthma	25	1'89	...	7	5	...	2	...	209	...	26	973	8
Passive congestion of the lung	2	'22	...	...	...	...	...	...	2	...	...	10	2
Hæmoptysis	11	'66	...	...	...	...	...	...	23	1	...	92	1
Pulmonary apoplexy	...	...	...	...	...	...	...	...	...	...	...	1	1
Œdema of the lung	...	...	...	...	...	...	...	...	1	1	...	...	...
Pneumonia	369	35'11	45	3	7	2	24	8	1,969	404	8	2,101	478
Abscess of the lung	1	'23	...	...	...	...	...	...	1	...	...	5	5
Gangrene	2	'02	2	...	...	...	...	...	1	...	...	7	6
Cirrhosis	...	...	...	...	...	...	...	...	...	...	...	3	2
Acute pneumonic phthisis	3	'24	1	...	...	...	...	...	13	7	...	14	6
Chronic	4	'91	...	4	1	...	...	...	20	4	7	120	38
Emphysema of the lungs	...	...	...	...	...	...	...	...	7	...	6	9	5
Millstone-maker's phthisis	...	...	...	...	...	...	...	...	...	...	...	2	2
Hydrothorax	2	'44	...	1	...	...	...	...	1	...	...	2	1
Pleurisy	115	8'21	2	1	5	1	...	...	278	21	3	223	17
Empyema	5	'52	2	1	...	...	1	...	7	3	...	6	5
Adhesions of pleura	...	...	...	...	...	...	...	...	1	...	...	...	...
Pneumothorax	...	...	...	...	...	...	...	...	2	1	...	...	...
Ulcer of the lips	3	'10	...	...	...	...	...	...	5	...	...	6	...
Fissure of	...	...	...	...	...	...	...	...	1	...	...	...	...
Stomatitis	18	'77	...	...	2	...	14	1	54	...	...	131	...
Ulcerative stomatitis	4	'21	...	...	1	...	...	...	7	...	...	27	...
Vesicular	...	...	...	...	...	...	...	...	1	...	...	...	...
Noma	...	...	...	...	...	...	...	...	2	...	...	3	...
Ranula	9	'43	...	...	...	...	...	...	6	...	...	1	...
Abscess of the antrum	3	'10	...	...	...	...	...	...	2	...	...	...	...
Cyst of jaw	2	'22	...	...	...	...	...	...	...	...	...	...	...
Teething	...	...	...	...	...	...	226	25	3	...	...	1	...
" with convulsions	...	...	...	...	...	...	10	6	...	...	...	...	...
" with diarrhœa	...	...	...	...	...	...	1	...	...	...	...	...	...
Ulceration of the dental pulp	...	...	...	...	...	...	...	...	1	...	...	3	...
Degeneration	...	...	...	...	...	...	...	...	...	...	...	3	...
Caries of dentine	24	1'64	...	5	...	...	2	...	30	...	...	26	...
Necrosis of	1	'01	...	...	...	...	...	...	...	...	...	...	...
Inflammation of the dental periosteum	122	3'75	...	1	3	...	1	...	17	...	...	6	...
Abscess	208	7'59	...	...	4	...	2	...	173	...	...	248	...
Inflammation of the periosteum and gums	4	'08	...	...	1	...	...	...	6	...	...	8	...
Suppuration of the periosteum and gums	2	'32	...	...	...	...	...	...	5	...	...	1	...
Ulceration of gums	41	2'30	...	...	1	...	...	...	7	...	...	139	...
Caries of alveoli	2	'19	...	...	...	...	...	...	1	...	...	...	...
Necrosis	3	'19	...	...	...	...	...	...	1	...	1	...	...
Toothache	...	...	...	...	1	...	...	...	...	...	...	3	...
Inflammation of the tongue	2	'11	...	...	...	...	...	...	9	...	...	3	...
Ulcer	1	'04	...	...	...	...	...	...	8	...	...	3	...
Hypertrophy of the tonsils	7	'42	...	...	...	...	...	...	1	...	...	3	...
Elongated uvula	1	'03	...	...	...	...	...	...	2	...	...	3	...
Relaxed throat	...	...	...	...	...	...	...	...	2	...	...	4	...
Sorethroat	1,524	44'60	...	...	20	...	24	2	209	...	...	155	...
Quinsy	354	11'87	...	...	10	...	4	1	95	1	...	49	...
Follicular tonsillitis	499	17'56	...	...	20	...	27	...	89	...	...	55	...
Ulceration of the fauces	32	1'24	...	...	1	...	...	...	10	...	...	4	...
Inflammation of the salivary glands	6	'57	...	...	...	...	...	...	14	...	...	14	...
Abscess	1	'84	...	...	...	...	...	...	...	...	...	...	...
Salivary fistula	...	...	...	...	...	...	...	...	3	...	...	1	...
Salivation	...	...	...	...	...	...	...	...	...	...	...	1	...
Follicular inflammation of the pharynx	5	'47	...	3	...	...	...	...	12	...	...	14	...
Post-pharyngeal abscess	...	...	...	...	...	...	...	...	...	...	...	2	...
Ulceration of the pharynx	3	'32	...	...	...	...	...	...	1	...	...	6	3
Hæmorrhage from the stomach	2	'05	...	...	1	...	...	...	8	...	...	...	...
Inflammation of the stomach	81	3'96	2	5	13	...	6	...	54	1	...	38	...
Ulceration	1	'08	...	...	1	...	...	...	3	1	...	5	1
Perforating ulcer of the stomach	...	...	...	...	...	...	...	...	...	...	1	8	9
Dilatation	...	...	...	...	...	...	...	...	...	...	...	1	1
Contraction	...	...	...	...	...	...	...	...	...	...	...	...	...
Stricture of the pylorus	...	...	...	...	...	...	...	...	1	...	...	...	...
Dyspepsia	778	29'08	...	4	82	...	19	...	262	1	...	1,099	...
Gastrodynia	1	'10	...	...	...	...	...	...	1	...	...	5	...
Vomiting	...	...	...	...	3	...	...	...	1	...	...	11	...
Hæmorrhage from the intestines, including melæna	9	'68	...	...	...	...	...	...	2	...	...	9	1
Inflammation of the intestines	98	5'02	2	1	9	1	60	17	107	3	...	615	20
Enteritis	...	...	...	...	...	...	...	...	8	3	...	61	8
Typhlitis	52	5'56	...	2	...	...	1	...	27	3	...	22	1
Colitis	...	...	...	...	...	...	...	...	4	1	...	28	1
Ulcer of the intestines	...	...	...	...	...	...	...	...	...	...	...	16	4
Abscess in the sub-peritoneal tissue	2	'26	2	1	...	...	...	...	2	...	...	2	2
Fæcal accumulation	...	...	...	...	...	...	...	...	...	...	...	3	...
Tympanites	1	'07	...	...	...	...	...	...	2	1	...	1	...
Obstruction of the intestines	2	'14	...	...	...	...	...	...	7	4	...	11	4
Intussusception	...	...	...	...	...	...	...	...	1	...	...	...	...
Volvulus	...	...	...	...	...	...	...	...	2	2	...	2	2
Internal strangulation of the intestines	2	'02	2	...	...	...	...	...	1	1	...	1	1
Hernia	93	6'72	...	20	1	1	2	...	40	1	16	53	3
Perforation of the intestines	1	'01	1	...	...	...	...	...	1	1	...	4	5
Diarrhœa	1,419	50'36	1	5	58	1	236	32	1,318	18	6	7,033	203

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.	Admis- sions.	Deaths.				Admis- sions.	Deaths.
Constipation	30	'72	...	...	7	...	6	...	61	...	...	116	...
Colic	325	7'31	...	...	22	...	4	...	300	...	...	743	...
Hæmorrhage from the rectum and anus . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Abscess of the rectum and anus	20	1'49	...	...	...	...	1	...	26	...	...	28	1
Ulceration " " "	7	1'43	...	...	...	...	...	...	6	1	...	12	...
Piles	450	23'37	...	4	11	...	...	...	177	...	18	473	2
Prolapsus of the rectum and anus	9	1'01	...	...	1	...	4	...	2	...	...	22	...
Stricture " " " . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Fistula in ano	48	5'17	...	2	1	...	...	...	47	...	6	66	...
Fissure of the anus	18	1'33	...	...	...	...	1	...	10	...	...	6	...
Hypertrophy of the liver . . . . .	...	...	...	...	...	...	...	...	3	...	1	22	...
Atrophy " " " . . . . .	...	...	...	...	...	...	...	...	1	1	...	3	1
Congestion " " "	872	50'71	...	11	11	...	2	...	70	2	...	62	2
Acute yellow atrophy of the lower liver	1	'03	1	...	...	...	...	...	2	1	...	3	3
Hepatitis	621	51'34	2	34	11	1	1	...	80	5	1	61	5
Perihepatitis	6	'53	...	...	...	...	...	...	6	...	...	...	...
Cirrhosis of the liver	6	'53	2	3	1	1	1	1	5	3	2	43	28
Abscess " " "	101	10'27	50	21	4	1	...	...	8	8	...	11	10
Abscess of the liver associated with dysentery	52	5'15	36	3	...	...	2	1	2	1	...	4	...
Fatty liver . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Lardaceous liver . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Jaundice	435	22'19	...	...	6	...	7	1	156	1	...	354	7
Inflammation of the hepatic ducts and gall-bladder	50	2'22	...	...	...	...	...	...	7	...	...	2	...
Dilatation of the gall-bladder . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Gallstones	2	'25	...	...	...	...	...	...	...	...	...	5	...
Biliary colic	4	'15	...	...	...	...	...	...	4	...	...	...	...
Ascites . . . . .	...	...	...	...	...	...	...	...	6	...	1	25	11
Peritonitis	14	1'20	4	1	4	3	...	...	16	12	...	19	13
Puerperal peritonitis . . . . .	...	...	...	...	2	...	...	...	...	...	...	...	...
Adhesion of peritoneum . . . . .	...	...	...	...	...	...	...	...	1	...	1	...	...
Omental hernia . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Hypertrophy of the spleen . . . . .	...	...	...	...	...	...	...	...	2	...	...	6	...
Induration and enlargement of spleen from ague	12	'87	...	1	3	...	2	...	743	2	65	958	14
Congestion of the spleen	26	1'61	...	1	...	...	...	...	4	...	...	3	...
Splenitis	54	2'39	...	...	2	...	...	...	13	...	...	15	...
Abscess of the spleen	1	'07	1	...	...	...	...	...	1	1	...	2	1
Hypertrophy of lymph glands	1	'04	...	...	...	...	...	...	6	...	1	3	...
Inflammation of lymph vessels	17	'64	...	...	2	...	...	...	14	...	...	18	...
Suppuration " " "	1	'07	...	...	...	...	...	...	2	...	...	2	...
Inflammation of lymph glands	1,811	211'99	...	6	5	...	5	...	408	...	1	178	...
Suppuration " " "	254	27'51	...	12	2	...	1	...	58	...	1	93	1
Lymphadenoma . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Obstruction of lymph vessels	2	'10	...	...	...	...	...	...	1	...	...	...	...
Hypertrophy of the thyroid body	2	'29	...	...	...	...	...	...	...	...	...	...	...
Inflammation " " " . . . . .	...	...	...	...	...	...	...	...	2	...	...	1	...
Goitre	6	'31	...	1	1	...	...	...	33	...	1	1	...
Acute nephritis	13	2'64	3	3	...	...	1	...	16	5	1	20	5
Bright's disease	6	'60	...	1	...	...	...	...	13	2	2	99	23
Chronic nephritis	24	5'01	5	12	7	...	1	...	8	1	1	...	...
Granular kidney	6	1'07	...	3	...	...	1	...	3	...	1	2	2
Pyelitis . . . . .	...	...	...	...	...	...	...	...	2	1	...	1	1
Abscess of kidney	1	'08	1	1	...	...	...	...	...	...	...	1	...
Disseminated suppurative nephritis	1	'02	1	...	...	...	...	...	...	...	...	1	1
Perinephritic abscess . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Pyonephrosis	1	'15	...	...	...	...	...	...	...	...	...	...	...
Lardaceous kidney . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...
Hydronephrosis . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Calculus in kidney	2	'31	1	...	1	...	...	...	2	...	...	8	1
" in pelvis . . . . .	...	'11	...	1	...	...	...	...	1	...	...	...	...
" in ureter	2	'07	...	...	...	...	...	...	17	...	1	1	...
Nephralgia . . . . .	...	...	...	...	...	...	...	...	10	...	...	5	...
Diabetes insipidus	13	1'15	...	2	...	...	...	...	1	...	...	13	1
Suppression of urine	1	'01	1	...	...	...	...	...	2	1	...	2	2
Hæmaturia	11	1'13	...	2	...	...	...	...	3	...	...	9	...
Intermittent hæmaturia	2	'06	...	...	...	...	...	...	...	...	...	2	...
Chyluria . . . . .	...	...	...	...	1	...	...	...	...	...	...	3	...
Albuminuria . . . . .	...	...	...	...	...	...	...	...	4	...	...	9	2
Lithuria	1	'06	...	...	...	...	...	...	4	...	...	...	...
Hæmorrhage from the bladder . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Inflammation of the bladder	37	3'21	1	3	3	...	...	...	18	...	...	28	1
Sloughing " " " . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Calculus in the bladder	2	'15	...	...	...	...	1	...	6	...	...	6	1
Irritability of the bladder	2	'28	...	...	...	...	...	...	...	...	...	2	...
Retention of urine . . . . .	...	...	...	...	...	...	...	...	...	...	...	9	1
Incontinence of urine	29	1'47	...	2	...	...	1	...	...	...	...	1	...
Renal calculi . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
" colic . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Urethritis	4	'35	...	...	...	...	...	...	4	...	...	2	...
Gleet . . . . .	...	...	...	...	...	...	...	...	...	...	...	4	...
Urinary abscess . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Stricture of the urethra	89	7'68	...	12	...	...	...	...	28	2	2	39	2
Urinary fistula	3	1'31	...	2	...	...	...	...	2	...	2	4	...
Recto-urethral fistula	1	'18	...	1	...	...	...	...	...	...	...	...	...
Extravasation of urine . . . . .	...	...	...	...	...	...	...	...	1	...	...	3	1
Impacted calculus . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Hypertrophy of the prostate gland	1	'03	...	...	...	...	...	...	...	...	...	...	...
Inflammation " " "	2	'05	...	...	...	...	...	...	...	...	...	1	...
Abscess " " " . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Calculus in the prostate gland	1	'16	...	1	...	...	...	...	...	1	...	...	...
Œdema of the penis	1	'02	...	...	...	...	...	...	...	...	...	2	...
Inflammation of the glans penis	109	4'62	...	...	...	...	...	...	5	...	...	11	...
Abscess of the penis . . . . .	...	'08	...	...	...	...	...	...	...	...	...	...	...
Ulcer " " "	4,733	365'85	...	2	...	...	...	...	740	...	...	97	...
Phimosis	15	2'17	...	...	...	...	1	...	15	...	...	43	...
Paraphimosis	11	'63	...	...	...	...	...	...	8	...	...	9	...
Inflammation of the scrotum . . . . .	...	'09	...	...	...	...	...	...	2	...	...	5	...
Abscess " " "	1	'14	...	...	...	...	...	...	4	...	...	15	...
Sloughing " " " . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Pruritus " " " . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Hydrocele of the spermatic cord	12	1'48	...	...	...	...	...	...	1	...	...	...	...
Inflammation " " "	3	'13	...	...	...	...	...	...	1	...	...	...	...

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
Abscess of the spermatic cord	...	...	...	...	...	...	...	...	1	...	...	...	...
Varicocele	29	1'28	...	1	...	...	...	...	2	...	...	2	...
Hæmatocele	2	'08	...	...	...	...	...	...	3	...	...	6	1
Hydrocele of the tunica vaginalis	31	2'77	...	1	...	...	...	...	33	...	4	116	...
Atrophy of the testicle	...	...	...	...	...	...	...	...	1	...	...	...	...
Inflammation of the testicle	1	'01	...	...	...	...	...	...	...	...	...	...	...
Orchitis	483	31'31	...	2	...	...	...	...	307	...	3	130	...
Epididymitis	11	1'25	...	...	...	...	...	...	21	...	...	4	...
Abscess of the testicle	1	'09	...	...	...	...	...	...	...	...	...	...	...
Spermatorrhœa	1	'05	...	...	...	...	...	...	2	...	...	...	...
Inflammation of the ovary	...	...	...	...	12	...	1	...	...	...	...	1	...
Pelvic cellulitis (653b)	...	...	...	...	5	...	...	...	...	...	...	7	...
Parovarian cyst	...	...	...	...	...	...	...	...	...	...	...	1	...
Hypertrophy of the uterus	...	...	...	...	...	...	...	...	...	...	...	1	...
Subinvolution "	...	...	...	...	2	...	...	...	...	...	...	...	...
Hæmorrhage from " (659)	...	...	...	...	3	...	...	...	...	...	...	1	...
Inflammation of the uterus	...	...	...	...	17	...	...	...	...	...	...	1	...
Ulcer "	...	...	...	...	6	...	...	...	...	...	...	...	...
Abrasion "	...	...	...	...	1	...	...	...	...	...	...	...	...
Displacement "	...	...	...	...	...	...	...	...	...	...	...	1	...
Retroversion "	...	...	...	...	3	...	...	...	...	...	...	...	...
Retroflexion "	...	...	...	...	1	...	...	...	...	...	...	...	...
Prolapsus "	...	...	...	...	5	...	...	...	...	...	...	3	...
Ectropium of the cervix	...	...	...	...	1	...	...	...	...	...	...	...	...
Inflammation of the vagina	...	...	...	...	2	...	1	...	...	...	...	1	...
Prolapse "	...	...	...	...	...	...	1	...	...	...	...	...	...
Vesico-vaginal fistula	...	...	...	...	1	...	...	...	...	...	...	...	...
Œdema of the labia	...	...	...	...	1	...	...	...	...	...	...	...	...
Inflammation of the vulva	...	...	...	...	...	...	...	...	...	...	...	1	...
Abscess "	...	...	...	...	...	...	...	...	...	...	...	1	...
Ulcer "	...	...	...	...	1	...	...	...	...	...	...	...	...
Amenorrhœa	...	...	...	...	8	...	1	...	...	...	...	1	...
Dysmenorrhœa	...	...	...	...	8	...	...	...	...	...	...	2	...
Menorrhagia	...	...	...	...	30	...	...	...	...	...	...	21	...
Metrorrhagia	...	...	...	...	11	...	...	...	...	...	...	...	...
Leucorrhœa	...	...	...	...	6	...	...	...	...	...	...	...	...
Metritis (700)	...	...	...	...	1	...	...	...	...	...	...	...	...
Spurious pains and cramp	...	...	...	...	16	...	...	...	...	...	...	...	...
Hæmorrhage during pregnancy	...	...	...	...	10	...	...	...	...	...	...	...	...
Prolapsus of the uterus during pregnancy	...	...	...	...	2	...	...	...	...	...	...	...	...
Abortion	...	...	...	...	76	...	...	...	...	...	...	7	...
Premature labour	...	...	...	...	15	...	...	...	...	...	...	3	...
Still-birth	...	...	...	...	6	...	...	...	...	...	...	...	...
Atony of the uterus	...	...	...	...	...	...	...	...	...	...	...	1	...
Mechanical obstacle to the expulsion of the fœtus	...	...	...	...	...	...	...	...	...	...	...	3	...
Hæmorrhage from placenta prævia	...	...	...	...	1	...	...	...	...	...	...	...	...
Hæmorrhage from accidental detachment of the placenta	...	...	...	...	1	...	...	...	...	...	...	2	...
Rupture of perineum	...	...	...	...	1	...	...	...	...	...	...	1	...
Retention of placenta	...	...	...	...	...	...	...	...	...	...	...	1	...
Inversion of the uterus	...	...	...	...	...	...	...	...	...	...	...	1	...
Post-partum hæmorrhage	...	...	...	...	...	...	...	...	...	...	...	2	1
Retention of placental fragments	...	...	...	...	4	...	...	...	...	...	...	1	...
Milk fever	...	...	...	...	...	...	...	...	...	...	...	1	...
Metritis (727)	...	...	...	...	1	1	...	...	...	...	...	...	...
Pelvic cellulitis (puerperal)	...	...	...	...	2	...	...	...	...	...	...	1	1
Inflammation of the female breast	...	...	...	...	9	...	...	...	...	...	...	5	...
Abscess "	...	...	...	...	18	...	...	...	...	...	...	4	...
Sinus "	...	...	...	...	1	...	...	...	...	...	...	1	...
Galactorrhœa	...	...	...	...	...	...	...	...	...	...	...	2	...
Inflammation of the male breast	10	'42	...	...	...	...	...	...	...	...	...	25	...
Ostitis	4	'73	...	2	...	...	...	...	5	...	...	58	...
Periostitis	24	1'98	...	2	...	...	3	...	49	...	2	3	...
" circumscribed	28	2'59	...	2	...	...	...	...	21	...	...	...	...
" diffuse	7	'62	...	...	...	...	...	...	4	1	...	1	...
Perichondritis	...	...	...	...	...	...	...	...	3	...	1	10	1
Caries of bones	15	1'98	...	2	1	...	...	...	9	1	2	31	...
Necrosis "	11	2'03	...	4	1	...	4	...	10	...	...	...	...
Cyst	...	...	...	...	...	...	...	...	1	...	...	...	...
Dropsy of knee joint	1	'05	...	...	...	...	...	...	2	...	...	2	...
Inflammation of joints	...	...	...	...	...	...	...	...	1	...	...	...	...
Synovitis	543	37'94	...	25	...	...	8	...	350	...	7	147	1
Pulpy degeneration of synovial membrane	1	'27	...	...	...	...	...	...	...	...	...	2	...
Abscess of joints	2	'18	...	...	...	...	...	...	...	...	...	2	1
Ankylosis	15	1'22	...	6	...	...	...	...	4	...	1	...	...
Deformity from ankylosis	4	'48	...	1	...	...	...	...	...	...	1	...	...
Degeneration of cartilage	...	...	...	...	...	...	...	...	1	...	1	...	...
Loose cartilage	3	'35	...	...	...	...	...	...	2	...	...	...	...
Dislocation of articular cartilage	8	'28	...	...	...	...	1	...	3	...	...	...	...
Knock-kee	1	'06	...	...	...	...	...	...	...	...	...	1	...
Bow-leg	...	...	...	...	...	...	...	...	...	...	...	...	...
Psoas, lumbar, post-pharyngeal and other abscesses	6	1'06	1	2	...	...	...	...	...	...	...	1	2
Caries of spine	1	'52	...	1	...	...	...	...	...	...	...	3	...
Angular curvature of the spine	3	'20	...	2	...	...	2	...	...	...	1	1	...
Lateral "	...	...	...	...	...	...	1	...	1	...	...	1	...
Anterior "	...	...	...	...	...	...	...	...	...	...	...	...	...
Hypertrophy of muscles	2	'10	...	...	...	...	...	...	...	...	...	...	...
Atrophy of muscles	2	'23	...	1	...	...	...	...	4	...	1	4	...
Inflammation of muscles	1	'17	...	...	...	...	...	...	2	...	...	...	...
Abscess "	3	'44	...	2	...	...	...	...	1	...	...	4	...
Gangrene "	...	...	...	...	...	...	...	...	2	...	...	4	...
Cyst "	...	...	...	...	...	...	...	...	2	...	...	1	...
Contracture "	...	...	...	...	...	...	...	...	3	...	1	2	...
Inflammation of tendons and fasciæ	1	'03	...	...	...	...	...	...	2	...	...	...	...
Adhesion of tendons	1	'08	...	...	...	...	...	...	2	...	1	...	...
Contraction of tendons and fasciæ	25	1'94	...	4	...	...	...	...	6	...	2	3	...
Contracted palmar fascia	...	...	...	...	...	...	...	...	3	...	...	...	...
Club-foot	1	'01	...	1	...	...	2	...	1	...	...	...	...
Flat-foot	18	'78	...	14	...	...	...	...	3	...	1	...	...
Inflamed bursa	25	1'34	...	...	2	...	1	...	22	...	...	...	...
Bursal abscess	3	'27	...	...	2	...	...	...	2	...	...	...	...

TABLE LIII--continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
Thecal abscess	8	'30	...	...	...	...	...	...	...	...	...	22	...
Bunion	6	'36	...	1	...	...	...	...	...	...	...	...	...
Ganglion	10	'46	...	...	...	...	...	...	9	...	...	1	...
Bursal tumour	4	'62	...	1	...	...	...	...	6	...	1	...	...
Dropsy of bursa	1	'02	...	...	...	...	...	...	...	...	...	...	...
Hæmorrhage from the connective tissue . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Edema of the connective tissue	5	'45	...	...	...	...	...	...	20	...	...	16	...
Inflammation " "	758	25'13	...	1	3	...	4	...	374	3	...	468	3
Abscess " "	1,176	56'38	...	2	11	...	27	...	2,066	1	7	4,291	3
Slough . . . . .	...	...	...	...	...	...	...	...	...	...	...	3	...
Undue formation of fat . . . . .	...	...	...	...	...	...	...	...	...	...	3	...	...
Erythema	24	'97	...	...	...	...	1	...	9	...	...	12	...
Roseola	1	'02	...	...	...	...	1	...	1	...	...	...	...
Urticaria	46	1'49	...	...	...	...	4	...	67	...	...	102	...
Eczema	526	24'01	...	2	2	...	37	...	579	...	5	399	...
Intertrigo	2	'03	...	...	...	...	...	...	...	...	...	...	...
Impetigo	19	1'31	...	...	...	...	5	...	38	...	1	40	...
Ecthyma	2	'18	...	...	...	...	...	...	7	...	...	15	...
Pityriasis	1	'02	...	...	...	...	...	...	2	...	...	10	...
Prurigo	1	'03	...	...	...	...	...	...	4	...	...	6	...
Lichen	74	2'11	...	...	1	...	...	...	9	...	...	40	...
Psoriasis	37	2'85	...	...	...	...	1	...	29	...	1	35	...
Miliaria . . . . .	...	...	...	...	...	...	...	...	5	...	...	1	...
Herpes	42	1'49	...	...	...	...	2	...	62	...	...	69	...
Zona	33	1'23	...	...	...	...	1	...	112	...	...	72	...
Pemphigus	18	'82	...	...	...	...	8	...	14	...	...	10	...
Acne	14	'59	...	1	...	...	...	...	4	...	...	8	...
Gutta rosea	1	'02	...	...	...	...	...	...	...	...	...	...	...
Sycosis	15	1'04	...	...	...	...	...	...	3	...	...	2	...
Steatorrhœa . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Ichthyosis . . . . .	...	...	...	...	...	...	...	...	3	...	...	2	...
Leucoderma . . . . .	...	...	...	...	...	...	...	...	3	...	1	...	...
Chloasma	3	'45	...	...	...	...	...	...	1	...	...	...	...
Alopecia	1	'03	...	...	...	...	...	...	1	...	...	...	...
Chilblain . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Ulcer	854	47'95	...	2	16	...	6	...	3,303	...	7	4,240	2
Cicatrices . . . . .	...	...	...	...	...	...	...	...	1	...	1	1	...
Fissures . . . . .	...	...	...	...	...	...	...	...	42	...	1	6	...
Boil	1,794	61'93	...	1	21	...	43	...	3,628	...	1	2,680	...
Carbuncle	17	1'10	...	...	1	...	...	...	53	...	...	242	2
Gangrene	3	'25	1	...	...	...	...	...	1	...	...	1	1
Bedsore . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Whitlow, including Onychia	638	28'89	...	1	6	...	2	...	551	...	...	662	...
Corn	38	1'22	...	1	...	...	...	...	8	...	...	1	...
Lupus	7	'96	...	...	...	...	...	...	3	...	...	1	...
Wen	40	1'76	...	...	...	...	1	...	21	...	...	8	...
Molluscum contagiosum . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Delhi boil	4	'42	...	1	...	...	1	...	1	...	...	...	...
Pruritus . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Hyperidrosis	4	'15	...	...	...	...	...	...	1	...	...	...	...
Ringworm	354	12'38	...	...	1	...	8	...	365	...	1	311	...
Favus . . . . .	...	...	...	...	...	...	...	...	1	...	...	49	...
Tinea versicolor	1	'03	...	...	...	...	...	...	2	...	...	...	...
Itch	200	8'23	...	...	...	...	2	...	2,401	...	1	1,189	...
Phthiriasis	6	'17	...	...	...	...	...	...	2	...	...	...	...
Irritation by nettles and other stinging plants . . . . .	...	...	...	...	...	...	...	...	3	...	...	8	...
Accidental :—	...	...	...	...	...	...	...	...	...	...	...	...	...
Poison, arsenic . . . . .	...	...	...	...	...	...	1	...	...	...	...	2	2
" mercury . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
" mercurial inflammation of the dental periosteum	1	'03	...	...	...	...	...	...	1	1	...	1	...
" lime . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
" iodine	1	'01	...	...	...	...	...	...	...	...	...	1	1
" oxalic acid	1	'01	...	...	1	...	...	...	...	...	...	...	...
" alcohol	1	'03	2	...	...	...	...	...	2	1	...	...	...
" carbolic acid	1	'02	...	...	...	...	...	...	...	...	...	...	...
" petroleum . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	...
" vegetable (not defined) . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
" Indian hemp . . . . .	...	...	...	...	...	...	...	...	13	2	1	3	...
" opium . . . . .	...	...	...	...	...	...	...	...	3	2	...	17	...
" tobacco . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
" decayed and diseased meat	3	'02	3	...	...	...	...	...	...	...	...	...	...
" poisonous fish . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...
" chloroform vapour	1	...	1	...	...	...	...	...	1	1	...	1	1
" irritant drugs . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Poisoned wound, by venomous animal	1	'01	...	...	...	...	1	...	2	...	...	...	...
" " by snake	2	...	2	...	...	...	...	...	13	1	...	15	...
" " by scorpion	2	'03	...	...	...	...	...	...	11	...	...	4	...
" " by centipede . . . . .	...	...	...	...	...	...	...	...	...	...	...	22	...
" " by stinging insects . . . . .	...	...	...	...	...	...	...	...	19	...	...	29	...
" " by fish	3	'01	...	...	...	...	...	...	1	...	...	...	...
" " by animals having infectious disease . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
" " by dog	6	'16	...	4	...	...	...	...	7	...	...	1	...
" " by monkey . . . . .	...	...	...	...	...	...	1	...	...	...	...	2	...
" " by jackal . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
" " by cat . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
" " by rat . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
" " by dead animal matter . . . . .	...	...	...	...	...	...	...	...	2	1	...	...	...
" " by morbid secre- tions	1	'02	...	...	...	...	...	...	1	...	...	...	...
" " by vegetable sub- stances	2	'06	...	...	...	...	...	...	1	...	...	...	...
" " by subcutaneous injection cholera antitoxine	6	'11	...	...	...	...	...	...	...	...	...	...	...
" " by mineral sub- stances	2	'02	...	...	...	...	...	...	...	...	...	...	...
" " by decomposing organic matter . . . . .	...	...	...	...	...	...	1	...	...	...	1	...	...
Effects of electricity . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalid- ing.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
Accidental— <i>contd.</i>													
Surfeit . . . . .	...	...	...	...	...	...	...	...	1	...	...	8	...
Lightning stroke	3	'06	...	...	...	...	...	...	5	3	...	...	...
Heat-stroke	3	'09	...	...	...	...	1	1	...	...	...	...	...
Sunstroke	51	2'14	2	...	4	...	4	2	20	9	...	56	8
Heat-apoplexy	214	13'01	47	12	5	6	3	2	26	17	1	114	33
Multiple injury	9	1'10	4	1	...	...	...	...	8	1	...	29	3
Asphyxia from submersion	1	...	13	...	...	...	...	...	1	12	...	...	2
„ from plugging of air-pas- sages with foreign substances . . . . .	...	...	...	...	...	...	1	1	...	...	...	...	...
Asphyxia from compression of chest . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Starvation . . . . .	...	...	...	...	...	...	...	...	...	...	...	84	5
Exhaustion . . . . .	...	...	...	...	...	...	1	1	...	1	...	...	...
Shock . . . . .	...	...	...	...	...	...	...	...	1	...	...	2	...
Contusions	1,685	63'34	...	3	11	...	12	...	2,784	...	7	1,224	...
Strains and sprains	2,043	83'71	...	5	6	...	4	...	1,195	...	4	259	...
Rupture of muscles, tendons and ligaments	9	'79	...	...	...	...	...	...	2	...	...	...	...
Gunshot wounds	46	5'44	6	9	...	...	1	...	63	2	10	13	...
Other wounds	2,158	91'35	...	10	6	...	26	...	2,801	1	7	3,450	9
Foreign bodies in the tissues and organs	5	'21	...	...	...	...	1	...	34	1	1	30	...
Burns and scalds	68	3'69	...	1	2	...	12	1	320	1	...	348	2
Frost-bite . . . . .	...	...	...	...	...	...	...	...	12	...	...	...	...
Effects of irritants and corrosives	3	'09	...	...	...	...	...	...	5	...	...	...	...
Abrasions	627	20'93	...	...	...	...	2	...	1,882	...	...	48	...
Fracture of the vault of skull	5	'88	...	1	...	...	2	...	3	2	...	5	3
„ of the base of skull	5	'36	8	...	...	...	...	...	3	7	...	2	1
„ of spine	1	'21	...	...	...	...	...	...	...	...	...	1	1
„ of other bones	332	38'31	1	20	6	...	27	1	276	1	19	600	10
Dislocation of spine . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	...
„ of other bones	92	5'89	...	3	...	...	1	...	68	...	4	41	...
Compression of nerves	2	'12	...	...	...	...	...	...	...	...	...	...	...
Rupture of artery	1	'03	1	...	...	...	...	...	...	...	...	...	2
„ and laceration of viscera . . . . .	...	...	1	...	...	...	...	...	...	...	...	3	4
Concussion of the brain	36	2'99	...	3	...	...	1	...	35	1	1	3	1
Compression „ „ . . . . .	...	...	1	...	...	...	...	...	5	1	...	2	2
Laceration of the brain without frac- ture of the skull . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Contusion of eye with rupture of the sclerotic . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Contusion of eye with dislocation of the lens	1	'05	...	...	...	...	...	...	...	...	...	...	...
Contusion of eye with hæmorrhage into the globe	1	'15	...	...	...	...	...	...	4	...	1	...	...
Rupture of membrana tympani	2	'09	...	...	...	...	...	...	...	...	...	...	...
„ trachea . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Fracture of ribs with emphysema	2	'12	...	...	...	...	...	...	...	...	...	...	...
Rupture of the lungs . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Simple fracture with compression of cord	1	'02	...	1	...	...	...	...	...	...	...	...	...
Concussion of cord	3	'90	...	1	...	...	...	...	1	...	...	...	...
Compression „ „	1	'44	...	1	...	...	...	...	1	1	...	...	...
Contusion of abdomen with rupture of viscera . . . . .	...	...	...	...	1	...	...	...	2	1	...	...	...
Rupture of urethra	1	'11	...	...	...	...	...	...	1	...	...	...	...
Diffused hæmatocele of cord	1	'29	...	...	...	...	...	...	...	...	...	...	...
Injuries of bursæ . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Dislocation of foot with fracture of tibia and fibula	1	'01	...	1	...	...	...	...	...	...	...	...	...
Killed by fall of tree . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
„ „ earth . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	2
„ „ elephant . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Homicidal :—													
Not defined . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	10
Wound, gunshot . . . . .	...	...	...	...	...	...	...	...	3	14	...	1	1
Perforating wound of chest by <i>khukri</i> . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...
Wound of chest by knife	1	'04	1	...	...	...	...	...	...	...	...	...	...
Killed by police . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	...
„ „ dacoits . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	...
Fracture of base of skull by a heavy stick	1	...	1	...	...	...	...	...	...	...	...	...	...
Suicidal :—													
Poison, arsenic . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...
„ opium . . . . .	...	...	...	...	...	...	...	...	1	1	...	2	1
Drowning . . . . .	...	...	4	...	...	...	...	...	...	1	...	...	2
Hanging . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	6
Wound, gunshot	2	...	17	...	...	...	...	...	2	12	...	...	...
Cut-throat . . . . .	...	...	1	...	...	...	...	...	...	...	...	1	...
Fracture of base of skull (jumping from a wall) . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	...
Judicial :—													
Hanging . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	5
Punished . . . . .	...	...	...	...	...	...	...	...	...	...	...	92	...
Not defined :—													
Cut-throat . . . . .	...	...	...	...	...	...	...	...	...	...	...	12	...
Drowning . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Amputation of left leg . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
No appreciable disease	164	8'98	...	...	...	...	...	...	52	...	...	51	...
Not yet diagnosed . . . . .	...	...	...	...	...	...	...	...	3	...	...	1	...
Cause unknown . . . . .	...	...	1	...	...	...	...	...	...	11	...	...	...
GRAND TOTAL	97,738	6,614'74	1,046	1,966*	2,626	60	3,321	264	97,782†	1,309	1,439	108,165	3,048

Bengal Command... 656=29'2 per 1,000 of strength.
 Punjab „ ... 483=25'7 „ „ „ „
 * Madras „ ... 448=33'2 „ „ „ „
 Bombay „ ... 379=24'1 „ „ „ „
 India „ ... 1,966=27'9 „ „ „ „
 † The figures having been derived from the annual returns, do not agree with those in Table XXIX.

GOVERNMENT OF INDIA CENTRAL PRINTING OFFICE, No. 5 S. C.—4-4-98.—950.

ANNUAL REPORT
OF THE
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GOVERNMENT OF INDIA,

1896,

WITH

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CALCUTTA:
OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA.
1898.

Price Five Rupees.